

We are IntechOpen, the world's leading publisher of Open Access books Built by scientists, for scientists

4,800

Open access books available

122,000

International authors and editors

135M

Downloads

Our authors are among the

154

Countries delivered to

TOP 1%

most cited scientists

12.2%

Contributors from top 500 universities



WEB OF SCIENCE™

Selection of our books indexed in the Book Citation Index
in Web of Science™ Core Collection (BKCI)

Interested in publishing with us?
Contact book.department@intechopen.com

Numbers displayed above are based on latest data collected.
For more information visit www.intechopen.com



Amphibians and Reptiles of the Mediterranean Basin

Kerim Çiçek and Oğzukan Cumhuriyet

Additional information is available at the end of the chapter

<http://dx.doi.org/10.5772/intechopen.70357>

Abstract

The Mediterranean basin is one of the most geologically, biologically, and culturally complex region and the only case of a large sea surrounded by three continents. The chapter is focused on a diversity of Mediterranean amphibians and reptiles, discussing major threats to the species and its conservation status. There are 117 amphibians, of which 80 (68%) are endemic and 398 reptiles, of which 216 (54%) are endemic distributed throughout the Basin. While the species diversity increases in the north and west for amphibians, the reptile diversity increases from north to south and from west to east direction. Amphibians are almost twice as threatened (29%) as reptiles (14%). Habitat loss and degradation, pollution, invasive/alien species, unsustainable use, and persecution are major threats to the species. The important conservation actions should be directed to sustainable management measures and legal protection of endangered species and their habitats, all for the future of Mediterranean biodiversity.

Keywords: amphibians, conservation, Mediterranean basin, reptiles, threatened species

1. Introduction

The Mediterranean basin is one of the most geologically, biologically, and culturally complex region and the only case of a large sea surrounded by Europe, Asia and Africa. The Basin was shaped by the collision of the northward-moving African-Arabian continental plate with the Eurasian continental plate which occurred on a wide range of scales and time in the course of the past 250 mya [1].

The Basin stretches approx. 3800 km east to west from the tip of Portugal to the shores of Lebanon and 1000 km north to south from Italy to Morocco and Libya (**Figure 1**) [1, 2]. It covers the area surrounding the Mediterranean Sea, and includes partly or entirely 30 countries which are spread across 3 continents. It also includes 11,879 islands and islets [3].

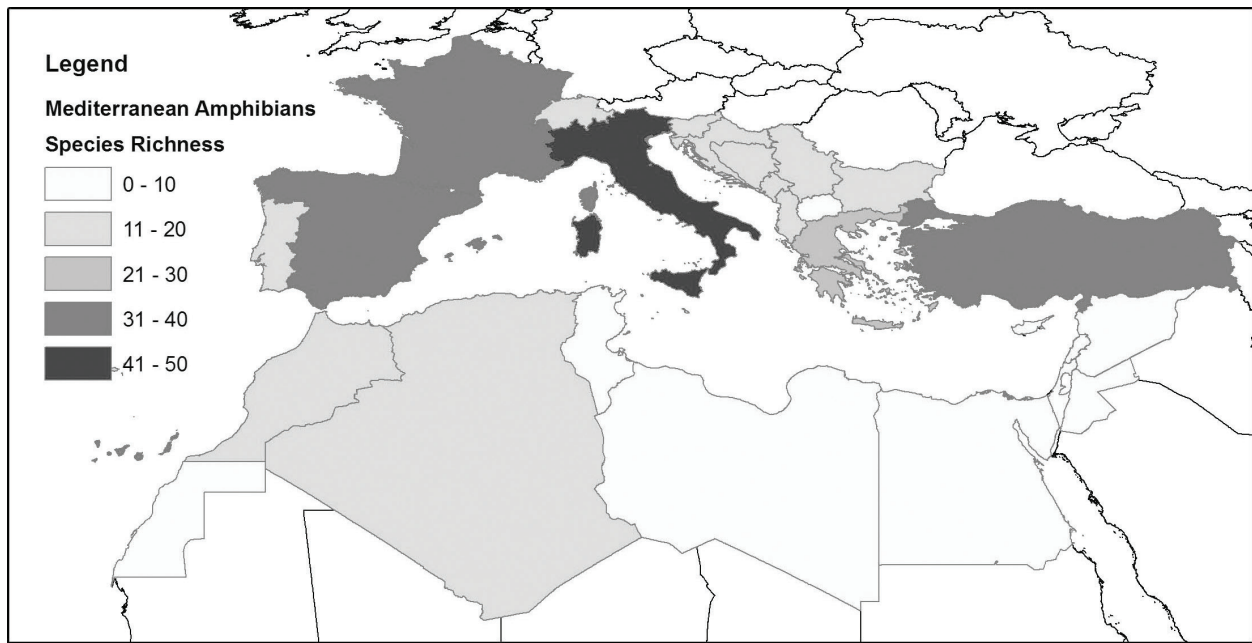


Figure 1. The amphibian richness of Mediterranean basin.

The Mediterranean region is considered to be 1 of 34 biodiversity hotspots due to its high level of floristic endemism [4] as well as the largest of the world's 5 Mediterranean-climate regions. The region flora includes more than 25,000 vascular plants while half of them are endemic [1, 2]—in other words, they are found nowhere else in the world.

The geographic structure of the Basin is an important factor in understanding its biodiversity. While coastal areas are extensive due to the presence of numerous archipelagos and islands, much of the area consists of mountainous terrain with many areas above 2000 m elevation and peaks as high as 4500 m [2, 3, 5]. The Mediterranean region consists of various landscapes such as high mountains, rocky shores, impenetrable scrub, semi-arid steppes, coastal wetlands, sandy beaches, and myriad islands of various shapes and sizes [1, 2].

The status and distribution of Mediterranean herptiles has been evaluated by Cox et al. [5] 9 years ago. The purpose of this chapter is to re-evaluate amphibian and reptile diversity and to discuss the major threats and conservation status of Mediterranean herptiles. The Amphibia Web [6] and The Reptile Database [7] were used for determining Mediterranean herptile list. Major threats and conservation status of species for the IUCN Red List of threatened species [8] are also addressed.

2. Amphibian and reptiles diversity

Amphibians (Amphibia) and reptiles (Reptilia) are two fascinating but poorly understood group of vertebrates, distributed around the world. For the time being, there are 7655 amphibian [6] and 10,450 reptilian [7] species recorded. Unfortunately, many amphibian and reptile

species are threatened and declining all-around the world. Habitat loss and degradation, introduced invasive species, environmental pollution, disease and parasitism, unsustainable use, and global climate change are major threats on species [6, 7]. There are 117 amphibian species and 398 reptile species, and most of them are endemic distributed throughout the Basin (**Table 1**).

Order	Family	No. of species	No. of endemic species
Amphibians			
Caudata (newts and salamanders)	Plethodontidae	8	8 (100%)
Caudata	Proteidae	1	1 (100%)
Caudata	Salamandridae	40	23 (58%)
Total—Newts and salamanders		49	32 (65%)
Anura (frogs and toads)	Alytidae	12	11 (92%)
Anura	Bombinatoridae	3	1 (33%)
Anura	Bufoidea	12	7 (59%)
Anura	Dicroglossidae	1	0 (0%)
Anura	Hylidae	8	5 (63%)
Anura	Pelobatidae	3	2 (50%)
Anura	Pelodytidae	2	2 (100%)
Anura	Ranidae	27	20 (74%)
Total—Frogs and Toads		68	48 (70%)
<i>Total—Amphibians</i>		117	80 (68%)
Reptiles			
Testudines (turtles and tortoises)	Cheloniidae	3	0 (0%)
Testudines	Dermochelyidae	1	0 (0%)
Testudines	Emydidae	3	0 (0%)
Testudines	Geoemydidae	3	2 (66%)
Testudines	Testudinidae	4	3 (75%)
Testudines	Trionychidae	2	0 (0%)
Total—Turtles and Tortoises		16	5 (31%)
Sauria (lizards)	Agamidae	23	10 (43%)
Sauria	Anguidae	5	4 (80%)
Sauria	Blaniidae	3	2 (66%)
Sauria	Chamaeleonidae	2	0 (0%)
Sauria	Eublepharidae	1	0 (0%)
Sauria	Gekkonidae	51	26 (51%)
Sauria	Lacertidae	132	86 (65%)

Order	Family	No. of species	No. of endemic species
Sauria	Phyllodactylidae	7	3 (42%)
Sauria	Scincidae	36	25 (70%)
Sauria	Varanidae	2	0 (0%)
Total—Lizards		262	160 (60%)
Ophidia (snakes)	Atractaspididae	3	2 (66%)
Ophidia	Boidae	2	0 (0%)
Ophidia	Colubridae	65	27 (42%)
Ophidia	Elapidae	5	0 (0%)
Ophidia	Lamprophiidae	1	0 (0%)
Ophidia	Leptotyphlopidae	3	0 (0%)
Ophidia	Natricidae	3	1 (33%)
Ophidia	Typhlopidae	3	2 (66%)
Ophidia	Viperidae	29	15 (52%)
Total—Snakes		114	47 (41%)
Amphisbaenia (amphisbaenians)	Amphisbaenidae	4	3 (75%)
Amphisbaenia	Trogonophiidae	1	1 (100%)
Total—Amphisbaenians		5	4 (80%)
Crocodylia (crocodilians)	Crocodylidae	1	0 (0%)
Total—Crocodilians		1	0 (0%)
Total—Reptiles		398	216 (54%)

Table 1. The amphibian and reptile diversity and endemism of Mediterranean basin.

2.1. Amphibian diversity

The amphibian fauna of the Mediterranean basin represents two orders: salamanders (Caudata) and anurans (Anura). A total of 117 amphibian species are found and 80 (68%) of them are endemic in the Basin (**Table 2, Figure 1**).

A total of 49 salamander species are present in this Region and 65% of them are endemic. The Salamandridae is the most diverse family. A total of 18 species with 7 genera (*Calotriton*, *Chioglossa*, *Euproctus*, *Ichthyosaura*, *Lyciasalamandra*, *Pleurodeles* and *Salamandrina*) are endemic to the Basin (**Table 2**). The only single member of Proteidae, *Proteus anguinus*, is present in the Balkan Peninsula and is endemic to the Basin. The other six members of the family are found in eastern North America.

The anurans have 68 species and 70% of them are endemic to the Region. The families Alytidae, Bufonidae and Ranidae consist of 75% of the group. A fascinating species of midwife

	Number of amphibians				Number of reptiles						
	Urodela	Anura	Total	Endemics	Amphisbaenia	Crocodylia	Testudines	Sauria	Serpentes	Total	Endemics
Albania	5	10	15	5	0	0	6	13	17	36	11
Algeria	9	4	13	12	1	0	4	70	32	107	50
Andorra	2	2	4	3	0	0	0	8	0	8	4
Bosnia and Herzegovina	8	8	16	2	0	0	3	6	8	17	5
Bulgaria	6	12	17	1	0	0	5	11	19	35	7
Canary Islands	0	2	2	2	0	0	0	16	1	17	15
Croatia	7	9	16	3	0	0	6	15	17	38	11
Cyprus	0	3	3	1	0	0	5	12	12	29	7
Egypt	0	8	8	1	0	1	7	65	37	110	23
France	13	26	39	20	0	0	9	19	14	42	22
Greece	7	17	24	8	1	0	9	33	24	67	29
Israel/Palestine	2	8	10	5	1	0	9	43	46	99	29
Italy	15	28	43	27	0	0	9	26	23	58	29
Jordan	1	3	4	2	0	0	7	61	44	112	27
Lebanon	2	4	6	2	2	0	5	26	26	59	19
Libyan Arab Jamahiriya	0	2	2	2	0	0	4	47	25	76	19
Macedonia	4	6	10	1	0	0	5	12	16	33	7
Malta	0	2	2	2	0	0	1	5	4	10	5
Monaco	1	1	2	2	0	0	2	1	0	3	0
Montenegro	4	11	15	3	0	0	4	10	6	20	8
Morocco	2	11	13	12	4	0	4	70	30	108	58
Portugal	7	13	20	14	2	0	7	17	12	38	26

	Number of amphibians				Number of reptiles						
	Urodela	Anura	Total	Endemics	Amphisbaenia	Crocodylia	Testudines	Sauria	Serpentes	Total	Endemics
Serbia	7	12	19	1	0	0	4	6	8	18	4
Slovenia	4	12	16	2	0	0	3	4	14	21	5
Spain	8	28	36	23	2	0	6	45	14	67	45
Switzerland	5	12	17	1	0	0	2	6	8	16	4
Syrian Arab Republic	2	3	5	2	2	0	7	46	40	95	22
Tunisia	1	4	5	4	1	0	4	44	24	73	34
Turkey (except for NE Anatolia)	15	13	28	12	3	0	11	56	49	119	39
Western Sahara	0	2	2	1	0	0	4	39	20	63	16

Table 2. The number of amphibians and reptiles in the Mediterranean countries.

toads (*Alytes*) have five species which are found across western Europe, northern Africa and Majorca.

The amphibian diversity is highest in Europe, especially in areas of higher rainfall, notably in northern Italy, France, western and northern Spain, Portugal, Slovenia and Croatia (**Figure 1, Table 3**) [5]. On the contrary, the diversity is much lower in the eastern and southern parts of the Basin where there are large arid and semiarid habitats. The higher amphibian diversity is observed in European countries of the western Mediterranean, especially in Italy, France and Spain [5]. The amphibian richness increases from south to north and from east to west of the Basin [1]. The reason lies in larger areas of humid habitats in the north and west of the Basin, which are an ideal habitat for amphibians.

Country	EX	CR	EN	VU	NT	LC	DD	NE
Albania	0	0	1	1	0	12	0	1
Algeria	0	0	1	2	2	9	0	0
Andorra	0	0	0	0	1	3	0	0
Bosnia and Herzegovina	0	0	0	1	1	14	0	0
Bulgaria	0	0	0	0	1	16	0	1
Canary Islands	0	0	0	0	0	2	0	0
Croatia	0	0	0	2	1	13	0	0
Cyprus	0	0	0	0	0	3	0	0
Egypt	0	0	0	0	0	8	0	1
France	0	0	1	2	4	32	0	3
Greece	0	1	1	3	0	18	1	0
Israel/Palestine	0	3	0	0	1	5	1	1
Italy	0	0	3	6	4	30	0	5
Jordan	0	0	0	0	0	2	1	2
Lebanon	0	0	0	0	1	4	1	1
Libyan Arab Jamahiriya	0	0	0	0	0	2	0	1
Macedonia	0	0	0	0	0	10	0	1
Malta	0	0	0	0	0	2	0	0
Monaco	0	0	0	0	1	1	0	0
Montenegro	0	0	0	0	0	14	0	2
Morocco	0	0	1	1	3	8	0	1
Portugal	0	0	0	1	5	13	0	2
Serbia	0	0	0	0	0	17	0	3
Slovenia	0	0	0	2	0	14	0	1

Country	EX	CR	EN	VU	NT	LC	DD	NE
Spain	0	1	1	3	7	22	0	4
Switzerland	0	0	0	0	0	17	0	3
Syrian Arab Republic	0	0	0	0	1	4	0	2
Tunisia	0	0	0	1	0	4	0	0
Turkey (except for NE Anatolia)	0	2	5	2	2	12	1	5
Western Sahara	0	0	0	0	1	1	0	0

Table 3. The conservation status of amphibians in Mediterranean countries.

2.2. Reptile diversity

The reptiles of the region represent five orders: Crocodylia (crocodilians), Testudines (turtles and tortoises), Amphisbaenia (amphisbaenians), Sauria (lizards) and Ophidia (snakes). The great majority of the species are lizards (262 species, 66%) and snakes (114 species, 29%) (**Figure 2, Table 4**). About 54% of the reptiles are endemic to the Basin. The most diverse families are Lacertidae (132 species), Gekkonidae (51 species) and Scincidae (36 species) for lizards; and Colubridae (65 species) and Viperidae (29 species) for snakes.

The reptile diversity is the highest in the eastern part of the Basin, particularly in southern Turkey, Lebanon, south-western Syria, Israel/Palestine, Jordan and parts of northern Egypt [5].



Figure 2. The reptile richness in Mediterranean basin.

Country	EX	CR	EN	VU	NT	LC	DD	NE
Albania	0	0	0	3	3	27	0	4
Algeria	0	1	4	2	11	75	6	9
Andorra	0	0	1	0	1	5	0	1
Bosnia and Herzegovina	0	0	0	1	2	13	0	2
Bulgaria	0	0	0	1	4	28	0	5
Canary Islands	0	3	0	0	0	14	0	1
Croatia	0	0	1	3	4	29	0	2
Cyprus	0	0	3	1	1	22	0	2
Egypt	0	2	2	3	4	80	3	16
France	0	1	1	4	6	26	0	5
Greece	0	0	2	4	8	48	0	8
Israel/Palestine	0	4	5	4	2	76	1	7
Italy	0	1	1	4	6	40	2	5
Jordan	0	1	4	4	1	88	1	13
Lebanon	0	0	4	2	0	42	1	10
Libyan Arab Jamahiriya	0	1	1	2	4	39	1	28
Macedonia	0	0	0	1	3	27	0	3
Malta	0	0	0	1	0	9	0	0
Monaco	0	0	0	0	1	2	0	0
Montenegro	0	0	0	3	2	13	0	2
Morocco	0	1	3	4	13	74	4	9
Portugal	0	1	2	3	6	21	0	7
Serbia	0	0	0	1	4	13	0	2
Slovenia	0	0	0	2	2	17	0	1
Spain	0	2	5	2	10	40	0	8
Switzerland	0	0	0	0	1	14	0	1
Syrian Arab Republic	0	0	3	2	3	78	1	11
Tunisia	0	0	1	1	8	75	2	14
Turkey (except for NE Anatolia)	0	1	5	2	5	91	3	38
Western Sahara	0	1	1	1	3	49	4	4

Table 4. The conservation status of reptiles in Mediterranean countries.

The species diversity is much higher in North Africa than in western Europe. The reptile diversity of North Africa is the highest in the mountainous area, in semi-arid regions along the northern margins of the Sahara and in the Nile Valley. The Balkans has much higher reptile diversity than elsewhere in Europe. At the other hand, the diversity is very low in northern Europe [5]. In contrast to amphibians, the species diversity of the reptiles increases from north to south and from west to east, along with gradients of the extent to which arid and semi-arid habitats are present [1, 5].

3. Conservation status

3.1. Conservation status of Mediterranean amphibians

About 29% of Mediterranean amphibians are globally threatened, while 5% are critically endangered, 11% endangered and 13% vulnerable (Figures 3–5). Rest of the species are evaluated as near threatened (15%), least concerned (49%), data deficient (<1%) and 7% is not evaluated. The salamanders and newts have higher share of threatened species (20 species, 17%). Among frogs and toads, 13 species (11%) are globally threatened. One of the endangered species is the Hula painted frog, *Latonia nigriventer*, from Israel/Palestine that is listed as extinct up to 2004. The species is restricted to an area under 2 km² due to heavy predation pressure by the waterbird populations [13]. The newts and salamanders have higher number of threatened species than frogs and toads (Table 5) [5].

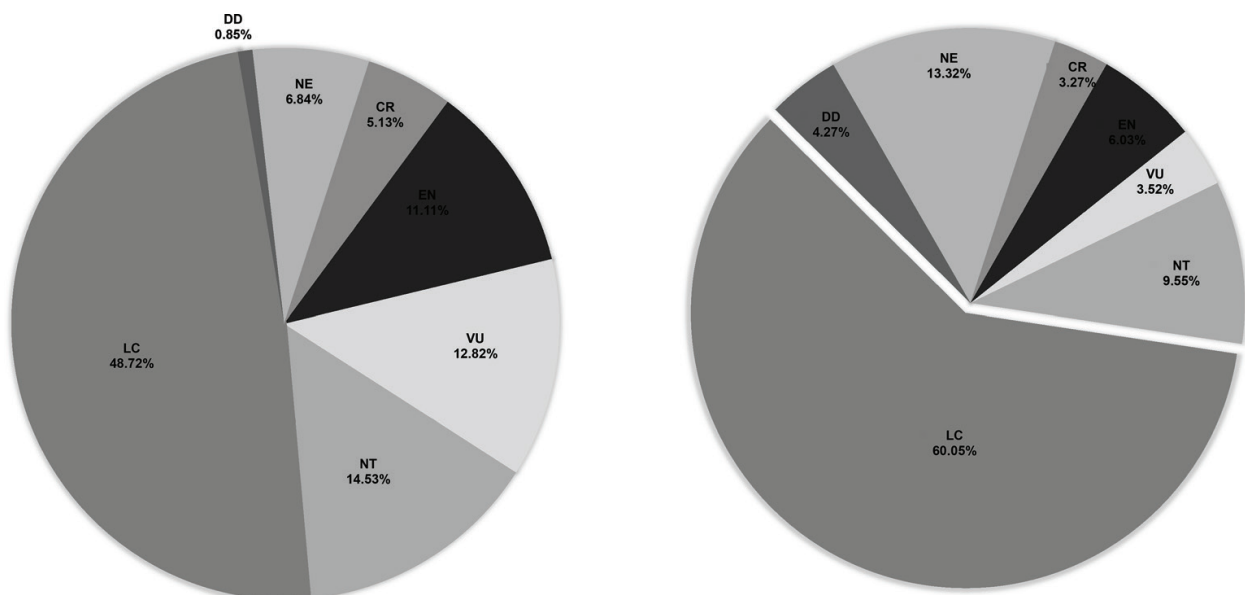


Figure 3. Summary of conservation status for Mediterranean amphibians (left) and reptiles (right). EX: extinct, EW: extinct in the wild, CR: critically endangered, EN: endangered, VU: vulnerable, NT: near threatened, LC: least concern, DD: data deficient, NE: not evaluated.



Figure 4. The species richness of endemic amphibians in the Mediterranean basin.



Figure 5. The species richness of threatened amphibians in the Mediterranean basin.

3.2. Conservation status of Mediterranean reptiles

About 13% of Mediterranean reptiles are globally threatened (51 species), out of which 3% is critically endangered, 6% endangered and 4% vulnerable. A total of 347 species are assessed

IUCN Red List categories	Caudata	Anura	Total	Crocodylia	Testudines	Amphisbaenia	Sauria	Ophidia	Total
Extinct									
Critically endangered	2	4	7	0	2	0	11	0	13
Endangered	7	6	13	0	2	0	16	6	26
Vulnerable	11	4	15	0	2	0	11	1	15
Near threatened	9	8	16	0	2	0	28	8	39
Least concern	16	41	57	1	7	5	155	71	242
Data deficient	0	1	1	0	1	0	8	8	18
Not evaluated	4	4	8	0	0	0	33	20	56
Total	49	68	117	1	16	5	262	114	398
Endemic	37 (76%)	48 (71%)	83 (63%)	0(%)	5 (31%)	4 (80%)	158 (60%)	47 (41%)	214 (54%)

Table 5. The IUCN red List categories and endemics of amphibians and reptiles in Mediterranean countries.



Figure 6. The species richness of endemic reptiles in the Mediterranean basin.

as near threatened (10%), least concerned (60%), data deficient (4%) and 13% is not evaluated (Figures 3, 6 and 7).

Amphisbaenians and crocodylians are not considered threatened species in the Region. At the other side, the chelonians have six threatened species. Among the lizards, there are

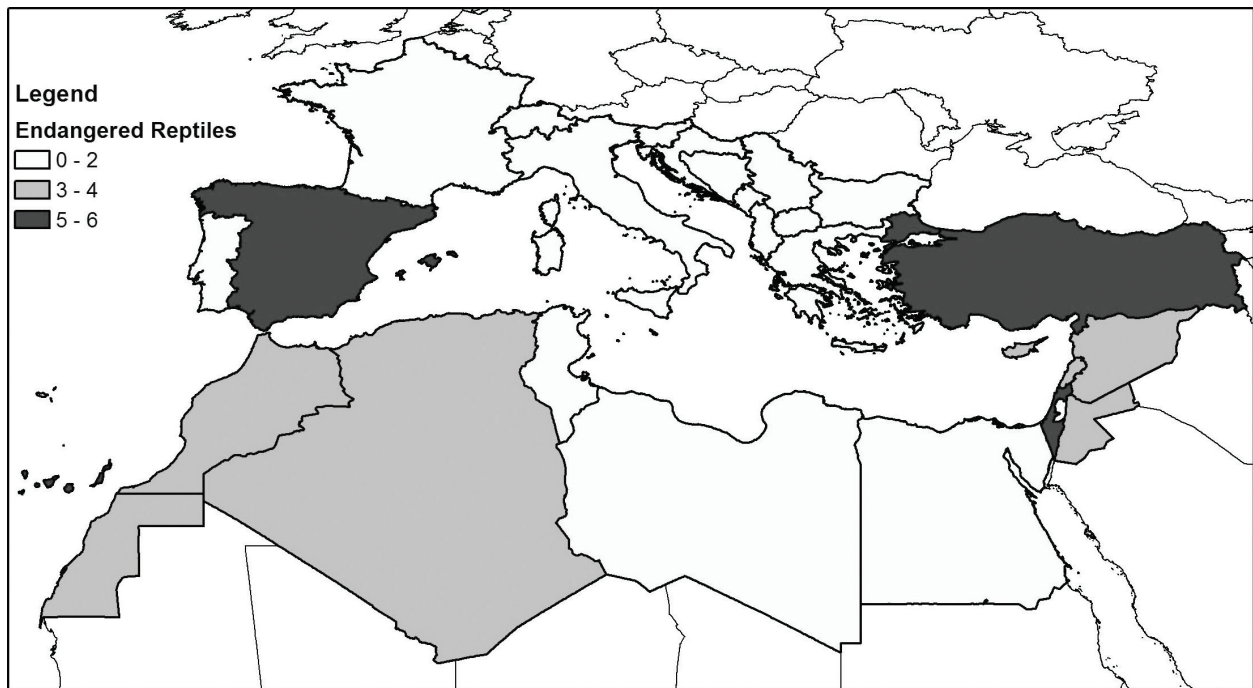


Figure 7. The species richness of threatened reptiles in the Mediterranean basin.

38 species considered threatened. Snakes have only seven threatened species (2%). The endemic lizard genus *Gallotia* occurs only on the Canary Islands and consist of eight species. The genus has evolved there almost 20 mya, ever since the first islands emerged from the sea [11, 12]. They are adapted to eating significant quantities of plants. The overall share of threatened amphibians in the Mediterranean basin is as twice higher (29%) than that for reptiles (14%).

4. Major threats

The Mediterranean basin is the second largest biodiversity hotspot in the world. It covers more than 2 million km². The Basin stretches west to east from Portugal to Lebanon and north to south from Italy to Morocco and Libya [2]. The Region is home to approx. 455 million people, from a wide variety of countries and cultures for some 8000 years [2, 10] The Gross National Income per capita in the Mediterranean EU countries being 10 times that of the north African ones [10]. The poor countries mostly depend on natural resources and this threatens natural resources at high levels. Besides, economic development increases the pressures on natural resources, the conservation challenges and options of the Basin are driven by these economic inequalities [10]. Species provide us with essential services as not only food, fuel, clothes and medicine, but also purification of water and air, prevention of soil erosion, regulation of climate, pollination of crops by insects and much more [10]. Many threats come up thanks to these entries. The human-induced factors threaten the Mediterranean biodiversity and nature more than any other biological 'hotspot' [10].

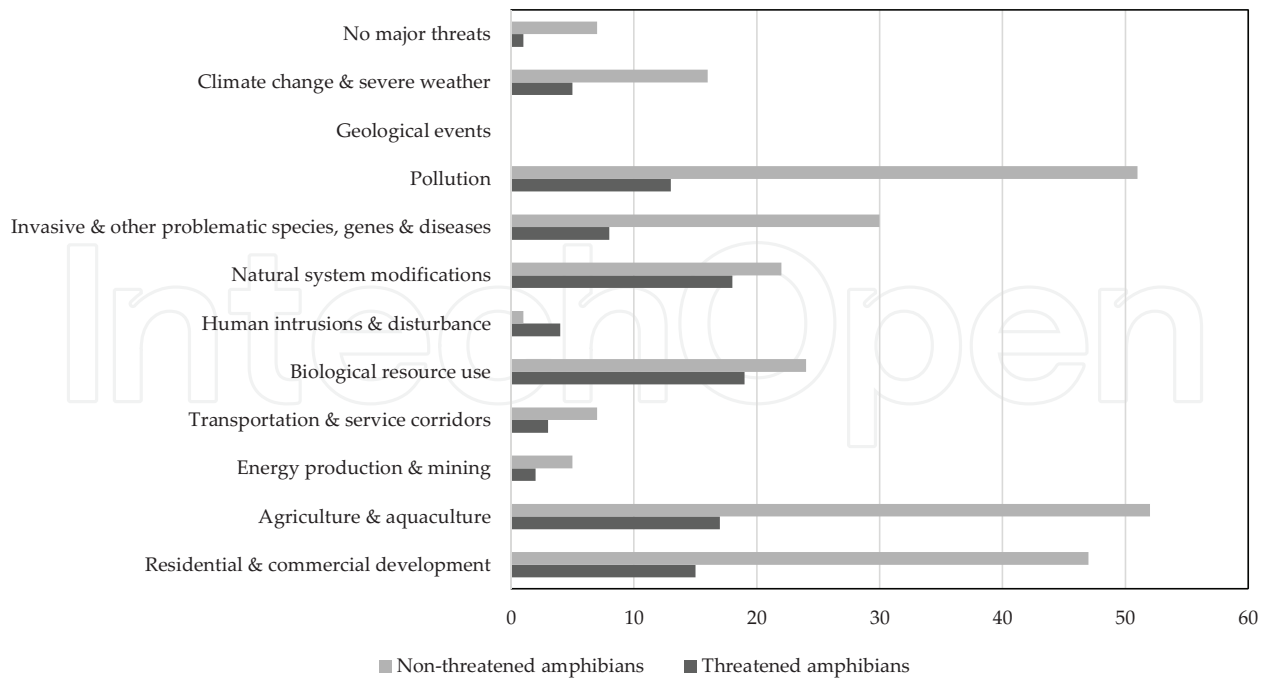


Figure 8. The major threats to Mediterranean amphibians.

Fifty-three percent of amphibians and 20% of reptiles are suffering from “residential & commercial developments” (**Figure 8**). Urbanization, industrial areas, tourism and recreation areas negatively affected the herptile species. Another important factor is “agriculture and aquaculture” activities and almost half of the species (59% for amphibians and 25% for reptiles) are affected by such activities. Along with the increase of human population, the food needs are also increasing day by day. The expansion of agricultural areas, livestock farming, overgrazing, aquaculture and mariculture activities are causing habitat loss and degradation and intervening in the food webs.

One of the biggest contemporary concerns is the growing need for energy as well as the need for nutrients and technological developments. The most basic resource used to meet the growing energy needs is still natural resource. Among natural resources, fossil fuels and mines are used most commonly. Use of renewable energy sources as alternative energy sources are not reached desired level. The “energy production and mining” activities have low effect on Mediterranean herptiles (6% for amphibians and 5% for reptiles).

Another problem brought by urbanization and population increase is in the construction of roads, especially narrow transport corridors cause wildlife mortality. Besides, these corridors create specific stress to biodiversity by fragmentation of the habitats and lead to other threats including farms, invasive species and poachers. The “transportation and service corridors” activities have low effect on amphibians (9%) and reptiles (6%).

Unsustainable harvesting, hunting and fishing activities are directly or indirectly affecting the amphibians and reptiles. Some species are used in traditional medicine, food and pet trade.

The threats are driven by destroying or declining natural populations [10]. The amphibians (37%) and reptiles (22%) are densely used as “biological resource use” for many purposes. Almost half of salamanders and snakes are suffering from commercial purpose and persecution. The Mediterranean marine turtle species are severely affected by accidental capture in fishing gear, also called as “bycatch” [10].

Besides, “human intrusions and disturbance” have low pressure on amphibians (4%) and reptiles (4%). While “natural system modifications” severely affect the amphibians (32%), it has low pressure on reptiles (9%). The dam construction, for water management or use, and other ecosystem modifications make significant pressure on natural herptile populations. Forest fires are deliberately excluded to open such areas, especially in the Mediterranean region in Turkey, it is observed that these activities have been carried out in the summer. The endemic *Lyciasalamandra* species living in this Region are highly affected by forest fires. In addition to the destruction of the area for the construction of the dams, the alteration of the water flow direction of the rivers disturbs the natural habitat areas, especially amphibians are highly affected due to degradation and reducing habitat quality.

Non-indigenous animal species, pathogens and genes are appearing as major threatening factors to biodiversity being the process that is expected to continue in the future. Mediterranean amphibians (34%) are more affected by “invasive and/or problematic species, pathogens, and genes” than reptiles (4%). The American bullfrog (*Lithobates catesbeianus* or *Rana catesbeiana*) is one of the invasive species in western Europe. Another invasive species, *Trachemys scripta*, is popular in the pet trade and has been introduced into the Mediterranean region by people releasing it to the wild.

The amphibians (59%) are more sensitive to “pollution” than reptiles (4%). Many chemical pollutants are increasing sensitivity to illness and mortality rates and reducing the reproductive success [10]. Domestic/industrial waste carries pollution to the sea and rural areas through rivers and sewage systems, in particular. Pollutants that cause water pollution from agricultural, silvicultural and aquaculture systems containing foodstuffs, toxic chemicals and sediments also pollute natural habitats as well as agricultural areas. Apart from these pollutants, trash and soil pollutants and even atmospheric pollutants are serious threat to species.

Today, global “climate change” emerges as a factor that affects the changing nature of natural habitats. Temperature fluctuations (changing in temperature extremes, increasing average summer temperatures and reducing winter/spring temperatures) cause the alteration of habitats, breeding phenology and host-parasite relationship of herptile species. Mediterranean amphibians (18%) are more affected by global climate change than reptiles (3%).

Mediterranean amphibians and reptiles are affected by these major threats (habitat loss and degradation, invasive alien species, harvesting, pollution natural disasters, disease, human disturbance, vehicle collision and persecution) (**Figures 8 and 9**) [5]. While the most common threats for amphibians are habitat loss and degradation, pollution and invasive alien species,

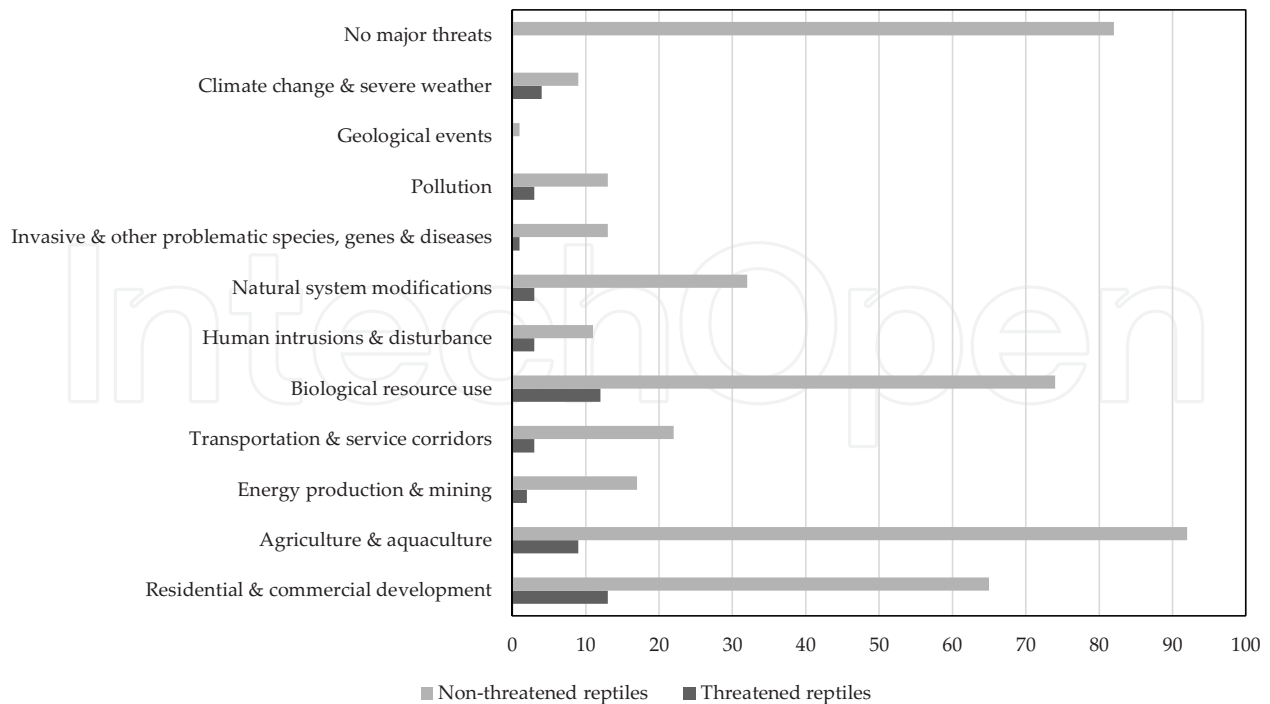


Figure 9. The major threats on to Mediterranean reptiles.

the most common ones for Mediterranean reptiles are habitat loss and degradation, harvesting and persecution [5]. On the other hand, there is no major threat for about 10% amphibians and 21% reptiles in the Mediterranean.

5. Conservation

The major threats to amphibians and reptiles in the Mediterranean are quite different from each other [5]. Therefore, each group needs specific conservation activities. Island species particularly need urgent conservation studies. Although amphibians (especially salamanders) have a high tendency to be threatened, and reptiles much less so, there are many more reptile species on the edge of extinction in the Region than amphibians [5, 9]. Several methods can be applied by scientists in order to protect species. Land/water protection and management, species management, education and raising awareness, and monitoring and research are major actions for Mediterranean herptiles [10, 14].

5.1. Land/water protection and management

The Mediterranean region is densely populated and more than 30% of all international tourists visit its coastal areas [15], thus direct disturbance by humans is an important threat to natural resources [10]. The Region is also considered as the cradle of Europe's civilization and one of the most important centers of crop plants origin [2]. However, the traditional farming

practices have been abandoned in recent years in favor of intensive and industrial-scale farming methods [2].

The area conservation and management are important for endemic and threatened species with high risk status. "Land/water management" include many different types of actions such as conserving or restoring habitats and controlling invasive/problematic species. The tourism, urbanization, deforestation, intensive farming, overgrazing and fires are causing habitat loss for many threatened species. Therefore, site protection and management has crucial importance for sustainability of the threatened amphibians and reptiles.

5.2. Species protection and management

Improvement and enforcement of legal protection for threatened species and their habitats is the most urgent conservation action to be taken at both regional and national levels [5]. Species Action Plans can be an effective means for determining the specific conservation actions that are needed and for promoting coordinated activities. The primary goal of species conservation is the preservation of viable populations of wild species in their original native range [10]. Another solution could be captive breeding studies for endangered species close to extinction as part of intensive management activities. Besides, measures to be taken in conjunction with legal regulations are essential for the sustainability of protected areas. All countries should have endangered species red list database along with IUCN Red List to determine conservation priorities.

5.3. Education and awareness raising activities

There is no way of protecting a species or effective conservation without support of local people. The education and raising awareness have important role for an effective conservation activity. Collaboration between regional actors such as locals, farmers, landowners, NGOs and policy-makers should enhance conservation efforts to prevent biodiversity loss [10].

An official undergraduate program could enhance the knowledge and skills of students for environmental conservation. Additionally, creating a high school environmental course could be useful in terms of raising awareness. Increasing the exchange of knowledge, skills and knowledge in structured settings outside their undergraduate programs could be an effective way to reach outside of normal learning for practitioners, stakeholders and other interested people.

5.4. Monitoring and researches

Monitoring and inventory surveys on the endangered amphibians and reptiles will be helpful for identifying threats and create key activities for protection of the species. The main topics could be determining population/community trends, habitat quality, modeling climate change impacts and attitudes of local populations.

6. Conclusion

The Mediterranean basin's biodiversity are facing many pressures and urgent action is required to preserve its future. Fortunately, many stakeholders such as regional and governmental organizations, NGOs, scientists and conservation practitioners are cooperating to preserve Mediterranean natural resources. The key conservation actions should be focused on sustainable management and legal protection of endangered species and their habitats [10]. Besides, it is not possible to deny importance of education, awareness-raising activities and monitoring studies for sustainability of Mediterranean amphibians and reptiles.

Acknowledgements

We thank Dilara Arslan, Çağdaş Yaşar, Sevde Karagöz and Onur Obut for their help to preparing data set and Ahmet Burak Kaya for reviewing English style.

Appendix 1.

Amphibians and reptiles of the Mediterranean basin

Class	Order	Family	Species	IUCN Red List category	Endemic (Yes/No)
Amphibia	Caudata	Plethodontidae	<i>Hydromantes ambrosii</i>	NT	Y
Amphibia	Caudata	Plethodontidae	<i>Hydromantes flavus</i>	VU	Y
Amphibia	Caudata	Plethodontidae	<i>Hydromantes genei</i>	VU	Y
Amphibia	Caudata	Plethodontidae	<i>Hydromantes imperialis</i>	NT	Y
Amphibia	Caudata	Plethodontidae	<i>Hydromantes italicus</i>	NT	Y
Amphibia	Caudata	Plethodontidae	<i>Hydromantes sarrabusensis</i>	VU	Y
Amphibia	Caudata	Plethodontidae	<i>Hydromantes strinatii</i>	NT	Y
Amphibia	Caudata	Plethodontidae	<i>Hydromantes supramontis</i>	EN	Y
Amphibia	Caudata	Proteidae	<i>Proteus anguinus</i>	VU	Y
Amphibia	Caudata	Salamandridae	<i>Calotriton arnoldi</i>	CR	Y
Amphibia	Caudata	Salamandridae	<i>Calotriton asper</i>	NT	Y
Amphibia	Caudata	Salamandridae	<i>Chioglossa lusitanica</i>	VU	Y
Amphibia	Caudata	Salamandridae	<i>Euproctus montanus</i>	LC	Y
Amphibia	Caudata	Salamandridae	<i>Euproctus platycephalus</i>	EN	Y

Class	Order	Family	Species	IUCN Red List category	Endemic (Yes/No)
Amphibia	Caudata	Salamandridae	<i>Ichthyosaura alpestris</i>	LC	N
Amphibia	Caudata	Salamandridae	<i>Lissotriton boscai</i>	LC	Y
Amphibia	Caudata	Salamandridae	<i>Lissotriton helveticus</i>	LC	N
Amphibia	Caudata	Salamandridae	<i>Lissotriton italicus</i>	LC	Y
Amphibia	Caudata	Salamandridae	<i>Lissotriton kosswigi</i>	NE	N
Amphibia	Caudata	Salamandridae	<i>Lissotriton vulgaris</i>	LC	N
Amphibia	Caudata	Salamandridae	<i>Lyciasalamandra antalyana</i>	EN	Y
Amphibia	Caudata	Salamandridae	<i>Lyciasalamandra atifi</i>	EN	Y
Amphibia	Caudata	Salamandridae	<i>Lyciasalamandra billae</i>	CR	Y
Amphibia	Caudata	Salamandridae	<i>Lyciasalamandra fazilae</i>	EN	Y
Amphibia	Caudata	Salamandridae	<i>Lyciasalamandra flavimembris</i>	EN	Y
Amphibia	Caudata	Salamandridae	<i>Lyciasalamandra helverseni</i>	VU	Y
Amphibia	Caudata	Salamandridae	<i>Lyciasalamandra luschani</i>	VU	Y
Amphibia	Caudata	Salamandridae	<i>Neurergus strauchii</i>	VU	Y
Amphibia	Caudata	Salamandridae	<i>Ommatotriton vittatus</i>	LC	Y
Amphibia	Caudata	Salamandridae	<i>Pleurodeles nebulosus</i>	VU	Y
Amphibia	Caudata	Salamandridae	<i>Pleurodeles poireti</i>	EN	Y
Amphibia	Caudata	Salamandridae	<i>Pleurodeles waltl</i>	NT	Y
Amphibia	Caudata	Salamandridae	<i>Salamandra algira</i>	VU	Y
Amphibia	Caudata	Salamandridae	<i>Salamandra atra</i>	LC	N
Amphibia	Caudata	Salamandridae	<i>Salamandra corsica</i>	LC	Y
Amphibia	Caudata	Salamandridae	<i>Salamandra infraimmaculata</i>	NT	N
Amphibia	Caudata	Salamandridae	<i>Salamandra lanzai</i>	VU	Y
Amphibia	Caudata	Salamandridae	<i>Salamandra salamandra</i>	LC	N
Amphibia	Caudata	Salamandridae	<i>Salamandrina perspicillata</i>	LC	Y

Class	Order	Family	Species	IUCN Red List category	Endemic (Yes/No)
Amphibia	Caudata	Salamandridae	<i>Salamandrina terdigitata</i>	LC	Y
Amphibia	Caudata	Salamandridae	<i>Triturus anaticus</i>	NE	Y
Amphibia	Caudata	Salamandridae	<i>Triturus carnifex</i>	LC	N
Amphibia	Caudata	Salamandridae	<i>Triturus cristatus</i>	LC	N
Amphibia	Caudata	Salamandridae	<i>Triturus dobrogicus</i>	NT	N
Amphibia	Caudata	Salamandridae	<i>Triturus ivanbureschi</i>	NE	N
Amphibia	Caudata	Salamandridae	<i>Triturus karelinii</i>	LC	N
Amphibia	Caudata	Salamandridae	<i>Triturus macedonicus</i>	NE	Y
Amphibia	Caudata	Salamandridae	<i>Triturus marmoratus</i>	LC	Y
Amphibia	Caudata	Salamandridae	<i>Triturus pygmaeus</i>	NT	Y
Amphibia	Anura	Alytidae	<i>Alytes cisternasii</i>	NT	Y
Amphibia	Anura	Alytidae	<i>Alytes dickhilleni</i>	VU	Y
Amphibia	Anura	Alytidae	<i>Alytes maurus</i>	NT	Y
Amphibia	Anura	Alytidae	<i>Alytes muletensis</i>	VU	Y
Amphibia	Anura	Alytidae	<i>Alytes obstetricans</i>	LC	N
Amphibia	Anura	Alytidae	<i>Discoglossus jeanneae</i>	NT	Y
Amphibia	Anura	Alytidae	<i>Discoglossus galganoi</i>	LC	Y
Amphibia	Anura	Alytidae	<i>Discoglossus montalentii</i>	NT	Y
Amphibia	Anura	Alytidae	<i>Discoglossus pictus</i>	LC	Y
Amphibia	Anura	Alytidae	<i>Discoglossus sardus</i>	LC	Y
Amphibia	Anura	Alytidae	<i>Discoglossus scovazzi</i>	LC	Y
Amphibia	Anura	Alytidae	<i>Latonia nigriventer</i>	CR	Y
Amphibia	Anura	Bombinatoridae	<i>Bombina bombina</i>	LC	N
Amphibia	Anura	Bombinatoridae	<i>Bombina pachypus</i>	EN	Y
Amphibia	Anura	Bombinatoridae	<i>Bombina variegata</i>	LC	N
Amphibia	Anura	Bufo	<i>Barbarophryne brongersmai</i>	NT	Y
Amphibia	Anura	Bufo	<i>Bufo bufo</i>	LC	N
Amphibia	Anura	Bufo	<i>Bufo spinosus</i>	NE	Y
Amphibia	Anura	Bufo	<i>Bufo balearicus</i>	LC	Y
Amphibia	Anura	Bufo	<i>Bufo boulengeri</i>	LC	Y
Amphibia	Anura	Bufo	<i>Bufo siculus</i>	LC	Y
Amphibia	Anura	Bufo	<i>Bufo variabilis</i>	DD	N
Amphibia	Anura	Bufo	<i>Bufo viridis</i>	LC	N

Class	Order	Family	Species	IUCN Red List category	Endemic (Yes/No)
Amphibia	Anura	Bufo	<i>Epidalea calamita</i>	LC	N
Amphibia	Anura	Bufo	<i>Sclerophrys kassasii</i>	LC	Y
Amphibia	Anura	Bufo	<i>Sclerophrys mauritanica</i>	LC	Y
Amphibia	Anura	Bufo	<i>Sclerophrys regularis</i>	LC	N
Amphibia	Anura	Dicroglossidae	<i>Hoplobatrachus occipitalis</i>	LC	N
Amphibia	Anura	Hyla	<i>Hyla arborea</i>	LC	N
Amphibia	Anura	Hyla	<i>Hyla heinzsteinitzi</i>	CR	Y
Amphibia	Anura	Hyla	<i>Hyla intermedia</i>	LC	Y
Amphibia	Anura	Hyla	<i>Hyla meridionalis</i>	LC	Y
Amphibia	Anura	Hyla	<i>Hyla molleri</i>	NE	Y
Amphibia	Anura	Hyla	<i>Hyla orientalis</i>	NE	N
Amphibia	Anura	Hyla	<i>Hyla sarda</i>	LC	Y
Amphibia	Anura	Hyla	<i>Hyla savignyi</i>	LC	N
Amphibia	Anura	Pelobates	<i>Pelobates cultripipes</i>	NT	Y
Amphibia	Anura	Pelobates	<i>Pelobates syriacus</i>	LC	N
Amphibia	Anura	Pelobates	<i>Pelobates varaldii</i>	EN	Y
Amphibia	Anura	Pelodytes	<i>Pelodytes ibericus</i>	LC	Y
Amphibia	Anura	Pelodytes	<i>Pelodytes punctatus</i>	LC	Y
Amphibia	Anura	Rana	<i>Pelophylax bedriagae</i>	LC	Y
Amphibia	Anura	Rana	<i>Pelophylax bergeri</i>	LC	Y
Amphibia	Anura	Rana	<i>Pelophylax caralitanus</i>	NT	Y
Amphibia	Anura	Rana	<i>Pelophylax cerigensis</i>	CR	Y
Amphibia	Anura	Rana	<i>Pelophylax cretensis</i>	EN	Y
Amphibia	Anura	Rana	<i>Pelophylax cypriensis</i>	NE	Y
Amphibia	Anura	Rana	<i>Pelophylax epeiroticus</i>	VU	Y
Amphibia	Anura	Rana	<i>Pelophylax esculentus</i>	LC	N
Amphibia	Anura	Rana	<i>Pelophylax hispanicus</i>	LC	Y
Amphibia	Anura	Rana	<i>Pelophylax kurtmuelleri</i>	LC	Y
Amphibia	Anura	Rana	<i>Pelophylax lessonae</i>	LC	N
Amphibia	Anura	Rana	<i>Pelophylax perezi</i>	LC	Y
Amphibia	Anura	Rana	<i>Pelophylax ridibundus</i>	LC	N
Amphibia	Anura	Rana	<i>Pelophylax saharicus</i>	LC	Y
Amphibia	Anura	Rana	<i>Pelophylax shqipericus</i>	EN	Y

Class	Order	Family	Species	IUCN Red List category	Endemic (Yes/No)
Amphibia	Anura	Ranidae	<i>Rana catesbeiana</i>	LC	N
Amphibia	Anura	Ranidae	<i>Rana dalmatina</i>	LC	N
Amphibia	Anura	Ranidae	<i>Rana graeca</i>	LC	Y
Amphibia	Anura	Ranidae	<i>Rana holtzi</i>	CR	Y
Amphibia	Anura	Ranidae	<i>Rana iberica</i>	NT	Y
Amphibia	Anura	Ranidae	<i>Rana italica</i>	LC	Y
Amphibia	Anura	Ranidae	<i>Rana latastei</i>	VU	Y
Amphibia	Anura	Ranidae	<i>Rana macrocnemis</i>	LC	N
Amphibia	Anura	Ranidae	<i>Rana perezii</i>	LC	Y
Amphibia	Anura	Ranidae	<i>Rana pyrenaica</i>	EN	Y
Amphibia	Anura	Ranidae	<i>Rana tavasensis</i>	EN	Y
Amphibia	Anura	Ranidae	<i>Rana temporaria</i>	LC	N
Reptilia	Testudines	Cheloniidae	<i>Caretta caretta</i>	VU	N
Reptilia	Testudines	Cheloniidae	<i>Chelonia mydas</i>	EN	N
Reptilia	Testudines	Cheloniidae	<i>Eretmochelys imbricata</i>	CR	N
Reptilia	Testudines	Dermochelyidae	<i>Dermochelys coriacea</i>	VU	N
Reptilia	Testudines	Emydidae	<i>Emys orbicularis</i>	NT	N
Reptilia	Testudines	Emydidae	<i>Emys trinacris</i>	DD	N
Reptilia	Testudines	Emydidae	<i>Trachemys scripta</i>	LC	N
Reptilia	Testudines	Geoemydidae	<i>Mauremys caspica</i>	LC	N
Reptilia	Testudines	Geoemydidae	<i>Mauremys leprosa</i>	LC	Y
Reptilia	Testudines	Geoemydidae	<i>Mauremys rivulata</i>	LC	Y
Reptilia	Testudines	Testudinidae	<i>Testudo graeca</i>	LC	N
Reptilia	Testudines	Testudinidae	<i>Testudo hermanni</i>	NT	Y
Reptilia	Testudines	Testudinidae	<i>Testudo kleinmanni</i>	CR	Y
Reptilia	Testudines	Testudinidae	<i>Testudo marginata</i>	LC	Y
Reptilia	Testudines	Trionychidae	<i>Rafetus euphraticus</i>	EN	N
Reptilia	Testudines	Trionychidae	<i>Trionyx triunguis</i>	LC	N
Reptilia	Amphisbaenia	Amphisbaenidae	<i>Blanus cinereus</i>	LC	Y
Reptilia	Amphisbaenia	Amphisbaenidae	<i>Blanus mettetalii</i>	LC	Y
Reptilia	Amphisbaenia	Amphisbaenidae	<i>Blanus strauchi</i>	LC	N
Reptilia	Amphisbaenia	Amphisbaenidae	<i>Blanus tingitanus</i>	LC	Y
Reptilia	Amphisbaenia	Trogonophiidae	<i>Trogonophis wiegmanni</i>	LC	Y

Class	Order	Family	Species	IUCN Red List category	Endemic (Yes/No)
Reptilia	Sauria	Agamidae	<i>Agama impalearis</i>	LC	Y
Reptilia	Sauria	Agamidae	<i>Agama spinosa</i>	LC	N
Reptilia	Sauria	Agamidae	<i>Phrynocephalus arabicus</i>	LC	Y
Reptilia	Sauria	Agamidae	<i>Phrynocephalus maculatus</i>	LC	N
Reptilia	Sauria	Agamidae	<i>Pseudotrapelus aqabensis</i>	NE	Y
Reptilia	Sauria	Agamidae	<i>Pseudotrapelus sinaitus</i>	LC	N
Reptilia	Sauria	Agamidae	<i>Stellagama stellio</i>	LC	N
Reptilia	Sauria	Agamidae	<i>Trapelus agnetae</i>	LC	N
Reptilia	Sauria	Agamidae	<i>Trapelus boehmei</i>	LC	Y
Reptilia	Sauria	Agamidae	<i>Trapelus lessonae</i>	LC	N
Reptilia	Sauria	Agamidae	<i>Trapelus mutabilis</i>	LC	N
Reptilia	Sauria	Agamidae	<i>Trapelus ruderatus</i>	LC	N
Reptilia	Sauria	Agamidae	<i>Trapelus savignii</i>	VU	Y
Reptilia	Sauria	Agamidae	<i>Trapelus schmitzi</i>	DD	N
Reptilia	Sauria	Agamidae	<i>Trapelus tournevillei</i>	LC	Y
Reptilia	Sauria	Agamidae	<i>Uromastix acanthinura</i>	NT	N
Reptilia	Sauria	Agamidae	<i>Uromastix aegyptia</i>	NT	N
Reptilia	Sauria	Agamidae	<i>Uromastix alfredschmidti</i>	NT	Y
Reptilia	Sauria	Agamidae	<i>Uromastix dispar</i>	NT	Y
Reptilia	Sauria	Agamidae	<i>Uromastix geyri</i>	NT	Y
Reptilia	Sauria	Agamidae	<i>Uromastix nigriventris</i>	NE	Y
Reptilia	Sauria	Agamidae	<i>Uromastix ocellata</i>	NT	N
Reptilia	Sauria	Agamidae	<i>Uromastix ornata</i>	NT	N
Reptilia	Sauria	Anguidae	<i>Anguis cephalonica</i>	NT	Y
Reptilia	Sauria	Anguidae	<i>Anguis graeca</i>	NE	Y
Reptilia	Sauria	Anguidae	<i>Anguis veronensis</i>	NE	Y
Reptilia	Sauria	Anguidae	<i>Hyalosaurus koellikeri</i>	LC	Y
Reptilia	Sauria	Anguidae	<i>Pseudopus apodus</i>	LC	N
Reptilia	Sauria	Blanidae	<i>Blanus alexandri</i>	NE	Y
Reptilia	Sauria	Blanidae	<i>Blanus aporus</i>	NE	Y
Reptilia	Sauria	Blanidae	<i>Blanus mariae</i>	NE	Y
Reptilia	Sauria	Chamaeleonidae	<i>Chamaeleo africanus</i>	LC	N
Reptilia	Sauria	Chamaeleonidae	<i>Chamaeleo chamaeleon</i>	LC	N

Class	Order	Family	Species	IUCN Red List category	Endemic (Yes/No)
Reptilia	Sauria	Eublepharidae	<i>Eublepharis angramainyu</i>	LC	N
Reptilia	Sauria	Gekkonidae	<i>Asaccus elisae</i>	LC	N
Reptilia	Sauria	Gekkonidae	<i>Bunopus blanfordii</i>	NE	Y
Reptilia	Sauria	Gekkonidae	<i>Bunopus tuberculatus</i>	LC	N
Reptilia	Sauria	Gekkonidae	<i>Cyrtopodion scabrum</i>	LC	N
Reptilia	Sauria	Gekkonidae	<i>Euleptes europaea</i>	NT	Y
Reptilia	Sauria	Gekkonidae	<i>Hemidactylus dawudazraqi</i>	NE	N
Reptilia	Sauria	Gekkonidae	<i>Hemidactylus flaviviridis</i>	LC	N
Reptilia	Sauria	Gekkonidae	<i>Hemidactylus foudaii</i>	LC	Y
Reptilia	Sauria	Gekkonidae	<i>Hemidactylus granosus</i>	NE	N
Reptilia	Sauria	Gekkonidae	<i>Hemidactylus lavadeserticus</i>	NE	Y
Reptilia	Sauria	Gekkonidae	<i>Hemidactylus mindiae</i>	LC	Y
Reptilia	Sauria	Gekkonidae	<i>Hemidactylus robustus</i>	LC	N
Reptilia	Sauria	Gekkonidae	<i>Hemidactylus sinaitus</i>	LC	N
Reptilia	Sauria	Gekkonidae	<i>Hemidactylus turcicus</i>	LC	N
Reptilia	Sauria	Gekkonidae	<i>Mediodactylus amictopholis</i>	EN	Y
Reptilia	Sauria	Gekkonidae	<i>Mediodactylus heterocercus</i>	LC	N
Reptilia	Sauria	Gekkonidae	<i>Mediodactylus kotschyi</i>	LC	N
Reptilia	Sauria	Gekkonidae	<i>Pristurus flavipunctatus</i>	LC	N
Reptilia	Sauria	Gekkonidae	<i>Pristurus rupestris</i>	LC	N
Reptilia	Sauria	Gekkonidae	<i>Quedenfeldtia moerens</i>	LC	Y
Reptilia	Sauria	Gekkonidae	<i>Quedenfeldtia trachyblepharus</i>	NT	Y
Reptilia	Sauria	Gekkonidae	<i>Saurodactylus brosetti</i>	LC	Y
Reptilia	Sauria	Gekkonidae	<i>Saurodactylus fasciatus</i>	VU	Y
Reptilia	Sauria	Gekkonidae	<i>Saurodactylus mauritanicus</i>	LC	Y
Reptilia	Sauria	Gekkonidae	<i>Stenodactylus doriae</i>	LC	N
Reptilia	Sauria	Gekkonidae	<i>Stenodactylus grandiceps</i>	LC	N
Reptilia	Sauria	Gekkonidae	<i>Stenodactylus mauritanicus</i>	NE	Y
Reptilia	Sauria	Gekkonidae	<i>Stenodactylus petrii</i>	LC	N
Reptilia	Sauria	Gekkonidae	<i>Stenodactylus slevini</i>	LC	N
Reptilia	Sauria	Gekkonidae	<i>Stenodactylus stenurus</i>	NE	Y
Reptilia	Sauria	Gekkonidae	<i>Stenodactylus sthenodactylus</i>	LC	N
Reptilia	Sauria	Gekkonidae	<i>Tarentola angustimentalis</i>	LC	Y

Class	Order	Family	Species	IUCN Red List category	Endemic (Yes/No)
Reptilia	Sauria	Gekkonidae	<i>Tarentola annularis</i>	LC	N
Reptilia	Sauria	Gekkonidae	<i>Tarentola bischoffi</i>	NE	Y
Reptilia	Sauria	Gekkonidae	<i>Tarentola boehmei</i>	LC	Y
Reptilia	Sauria	Gekkonidae	<i>Tarentola boettgeri</i>	LC	Y
Reptilia	Sauria	Gekkonidae	<i>Tarentola chazaliae</i>	LC	N
Reptilia	Sauria	Gekkonidae	<i>Tarentola delalandii</i>	LC	Y
Reptilia	Sauria	Gekkonidae	<i>Tarentola deserti</i>	LC	Y
Reptilia	Sauria	Gekkonidae	<i>Tarentola ephippiata</i>	LC	N
Reptilia	Sauria	Gekkonidae	<i>Tarentola fascicularis</i>	NE	Y
Reptilia	Sauria	Gekkonidae	<i>Tarentola gomerensis</i>	LC	Y
Reptilia	Sauria	Gekkonidae	<i>Tarentola mauritanica</i>	LC	Y
Reptilia	Sauria	Gekkonidae	<i>Tarentola mindiae</i>	LC	Y
Reptilia	Sauria	Gekkonidae	<i>Tarentola neglecta</i>	LC	Y
Reptilia	Sauria	Gekkonidae	<i>Tropicolotes algericus</i>	LC	N
Reptilia	Sauria	Gekkonidae	<i>Tropicolotes bisharicus</i>	LC	N
Reptilia	Sauria	Gekkonidae	<i>Tropicolotes nattereri</i>	LC	Y
Reptilia	Sauria	Gekkonidae	<i>Tropicolotes nubicus</i>	DD	N
Reptilia	Sauria	Gekkonidae	<i>Tropicolotes steudneri</i>	LC	N
Reptilia	Sauria	Gekkonidae	<i>Tropicolotes tripolitanus</i>	LC	Y
Reptilia	Sauria	Lacertidae	<i>Acanthodactylus aegyptius</i>	NE	Y
Reptilia	Sauria	Lacertidae	<i>Acanthodactylus blanci</i>	EN	Y
Reptilia	Sauria	Lacertidae	<i>Acanthodactylus boskianus</i>	LC	N
Reptilia	Sauria	Lacertidae	<i>Acanthodactylus busacki</i>	LC	N
Reptilia	Sauria	Lacertidae	<i>Acanthodactylus dumerilii</i>	LC	N
Reptilia	Sauria	Lacertidae	<i>Acanthodactylus erythrurus</i>	LC	Y
Reptilia	Sauria	Lacertidae	<i>Acanthodactylus grandis</i>	LC	N
Reptilia	Sauria	Lacertidae	<i>Acanthodactylus hardyi</i>	NE	N
Reptilia	Sauria	Lacertidae	<i>Acanthodactylus harranensis</i>	CR	Y
Reptilia	Sauria	Lacertidae	<i>Acanthodactylus longipes</i>	LC	N
Reptilia	Sauria	Lacertidae	<i>Acanthodactylus maculatus</i>	LC	Y
Reptilia	Sauria	Lacertidae	<i>Acanthodactylus opheodurus</i>	LC	N
Reptilia	Sauria	Lacertidae	<i>Acanthodactylus orientalis</i>	LC	N
Reptilia	Sauria	Lacertidae	<i>Acanthodactylus pardalis</i>	VU	Y

Class	Order	Family	Species	IUCN Red List category	Endemic (Yes/No)
Reptilia	Sauria	Lacertidae	<i>Acanthodactylus robustus</i>	LC	N
Reptilia	Sauria	Lacertidae	<i>Acanthodactylus savignyi</i>	NT	Y
Reptilia	Sauria	Lacertidae	<i>Acanthodactylus schmidti</i>	LC	Y
Reptilia	Sauria	Lacertidae	<i>Acanthodactylus schreiberi</i>	EN	Y
Reptilia	Sauria	Lacertidae	<i>Acanthodactylus scutellatus</i>	LC	N
Reptilia	Sauria	Lacertidae	<i>Acanthodactylus spinicauda</i>	CR	Y
Reptilia	Sauria	Lacertidae	<i>Acanthodactylus taghitensis</i>	DD	Y
Reptilia	Sauria	Lacertidae	<i>Acanthodactylus tilburyi</i>	NE	N
Reptilia	Sauria	Lacertidae	<i>Acanthodactylus tristrami</i>	LC	N
Reptilia	Sauria	Lacertidae	<i>Algyroides fitzingeri</i>	LC	Y
Reptilia	Sauria	Lacertidae	<i>Algyroides marchi</i>	EN	Y
Reptilia	Sauria	Lacertidae	<i>Algyroides moreoticus</i>	NT	Y
Reptilia	Sauria	Lacertidae	<i>Algyroides nigropunctatus</i>	LC	Y
Reptilia	Sauria	Lacertidae	<i>Anatololacerta anatolica</i>	LC	Y
Reptilia	Sauria	Lacertidae	<i>Anatololacerta budaki</i>	NE	Y
Reptilia	Sauria	Lacertidae	<i>Anatololacerta danfordi</i>	LC	Y
Reptilia	Sauria	Lacertidae	<i>Anatololacerta pelasgiana</i>	NE	Y
Reptilia	Sauria	Lacertidae	<i>Apathya cappadocica</i>	LC	Y
Reptilia	Sauria	Lacertidae	<i>Archaeolacerta bedriagae</i>	VU	Y
Reptilia	Sauria	Lacertidae	<i>Atlantolacerta andreanskyi</i>	NT	Y
Reptilia	Sauria	Lacertidae	<i>Dalmatolacerta oxycephala</i>	LC	Y
Reptilia	Sauria	Lacertidae	<i>Darevskia praticola</i>	NT	N
Reptilia	Sauria	Lacertidae	<i>Darevskia rudis</i>	LC	N
Reptilia	Sauria	Lacertidae	<i>Darevskia valentini</i>	LC	N
Reptilia	Sauria	Lacertidae	<i>Dinarolacerta mosorensis</i>	VU	Y
Reptilia	Sauria	Lacertidae	<i>Dinarolacerta montenegrina</i>	LC	Y
Reptilia	Sauria	Lacertidae	<i>Gallotia atlantica</i>	LC	Y
Reptilia	Sauria	Lacertidae	<i>Gallotia auaritae</i>	CR	Y
Reptilia	Sauria	Lacertidae	<i>Gallotia bravoana</i>	CR	Y
Reptilia	Sauria	Lacertidae	<i>Gallotia caesaris</i>	LC	Y
Reptilia	Sauria	Lacertidae	<i>Gallotia galloti</i>	LC	Y
Reptilia	Sauria	Lacertidae	<i>Gallotia intermedia</i>	CR	Y
Reptilia	Sauria	Lacertidae	<i>Gallotia simonyi</i>	CR	Y

Class	Order	Family	Species	IUCN Red List category	Endemic (Yes/No)
Reptilia	Sauria	Lacertidae	<i>Gallotia stehlini</i>	LC	Y
Reptilia	Sauria	Lacertidae	<i>Hellenolacerta graeca</i>	NT	Y
Reptilia	Sauria	Lacertidae	<i>Iberolacerta aranica</i>	CR	Y
Reptilia	Sauria	Lacertidae	<i>Iberolacerta aurelioi</i>	EN	Y
Reptilia	Sauria	Lacertidae	<i>Iberolacerta bonnali</i>	NT	Y
Reptilia	Sauria	Lacertidae	<i>Iberolacerta cyreni</i>	EN	Y
Reptilia	Sauria	Lacertidae	<i>Iberolacerta galani</i>	NT	Y
Reptilia	Sauria	Lacertidae	<i>Iberolacerta horvathi</i>	NT	N
Reptilia	Sauria	Lacertidae	<i>Iberolacerta martinezricai</i>	CR	Y
Reptilia	Sauria	Lacertidae	<i>Iberolacerta monticola</i>	VU	Y
Reptilia	Sauria	Lacertidae	<i>Lacerta agilis</i>	LC	N
Reptilia	Sauria	Lacertidae	<i>Lacerta bilineata</i>	LC	N
Reptilia	Sauria	Lacertidae	<i>Lacerta media</i>	LC	N
Reptilia	Sauria	Lacertidae	<i>Lacerta pamphylica</i>	LC	Y
Reptilia	Sauria	Lacertidae	<i>Lacerta schreiberi</i>	NT	Y
Reptilia	Sauria	Lacertidae	<i>Lacerta trilineata</i>	LC	N
Reptilia	Sauria	Lacertidae	<i>Lacerta viridis</i>	LC	N
Reptilia	Sauria	Lacertidae	<i>Latastia longicaudata</i>	LC	N
Reptilia	Sauria	Lacertidae	<i>Mesalina bahaeldini</i>	LC	Y
Reptilia	Sauria	Lacertidae	<i>Mesalina brevirostris</i>	LC	N
Reptilia	Sauria	Lacertidae	<i>Mesalina guttulata</i>	LC	N
Reptilia	Sauria	Lacertidae	<i>Mesalina martini</i>	LC	N
Reptilia	Sauria	Lacertidae	<i>Mesalina olivieri</i>	LC	N
Reptilia	Sauria	Lacertidae	<i>Mesalina pasteuri</i>	DD	N
Reptilia	Sauria	Lacertidae	<i>Mesalina rubropunctata</i>	LC	N
Reptilia	Sauria	Lacertidae	<i>Mesalina simoni</i>	LC	Y
Reptilia	Sauria	Lacertidae	<i>Ophisops elbaensis</i>	DD	N
Reptilia	Sauria	Lacertidae	<i>Ophisops elegans</i>	LC	N
Reptilia	Sauria	Lacertidae	<i>Ophisops occidentalis</i>	LC	Y
Reptilia	Sauria	Lacertidae	<i>Parvilacerta fraasii</i>	EN	Y
Reptilia	Sauria	Lacertidae	<i>Parvilacerta parva</i>	LC	N
Reptilia	Sauria	Lacertidae	<i>Philochortus zolii</i>	EN	N
Reptilia	Sauria	Lacertidae	<i>Phoenicolacerta cyanisparsa</i>	LC	Y

Class	Order	Family	Species	IUCN Red List category	Endemic (Yes/No)
Reptilia	Sauria	Lacertidae	<i>Phoenicolacerta kulzeri</i>	EN	Y
Reptilia	Sauria	Lacertidae	<i>Phoenicolacerta laevis</i>	LC	Y
Reptilia	Sauria	Lacertidae	<i>Phoenicolacerta troodica</i>	LC	Y
Reptilia	Sauria	Lacertidae	<i>Podarcis bocagei</i>	LC	Y
Reptilia	Sauria	Lacertidae	<i>Podarcis carbonelli</i>	EN	Y
Reptilia	Sauria	Lacertidae	<i>Podarcis cretensis</i>	EN	Y
Reptilia	Sauria	Lacertidae	<i>Podarcis erhardii</i>	LC	Y
Reptilia	Sauria	Lacertidae	<i>Podarcis filfolensis</i>	LC	Y
Reptilia	Sauria	Lacertidae	<i>Podarcis gaigeae</i>	VU	Y
Reptilia	Sauria	Lacertidae	<i>Podarcis guadarramae</i>	NE	Y
Reptilia	Sauria	Lacertidae	<i>Podarcis hispanicus</i>	LC	Y
Reptilia	Sauria	Lacertidae	<i>Podarcis lewendis</i>	VU	Y
Reptilia	Sauria	Lacertidae	<i>Podarcis lilfordi</i>	EN	Y
Reptilia	Sauria	Lacertidae	<i>Podarcis liolepis</i>	NE	N
Reptilia	Sauria	Lacertidae	<i>Podarcis melisellensis</i>	LC	Y
Reptilia	Sauria	Lacertidae	<i>Podarcis milensis</i>	NT	T
Reptilia	Sauria	Lacertidae	<i>Podarcis muralis</i>	LC	Y
Reptilia	Sauria	Lacertidae	<i>Podarcis peloponnesiacus</i>	LC	Y
Reptilia	Sauria	Lacertidae	<i>Podarcis pityusensis</i>	NT	Y
Reptilia	Sauria	Lacertidae	<i>Podarcis raffonei</i>	CR	Y
Reptilia	Sauria	Lacertidae	<i>Podarcis siculus</i>	LC	Y
Reptilia	Sauria	Lacertidae	<i>Podarcis tauricus</i>	LC	Y
Reptilia	Sauria	Lacertidae	<i>Podarcis tiliguerta</i>	LC	Y
Reptilia	Sauria	Lacertidae	<i>Podarcis vaucheri</i>	LC	Y
Reptilia	Sauria	Lacertidae	<i>Podarcis virescens</i>	NE	Y
Reptilia	Sauria	Lacertidae	<i>Podarcis waglerianus</i>	LC	Y
Reptilia	Sauria	Lacertidae	<i>Psammodromus algirus</i>	LC	Y
Reptilia	Sauria	Lacertidae	<i>Psammodromus blanci</i>	NT	Y
Reptilia	Sauria	Lacertidae	<i>Psammodromus edwardsianus</i>	NE	N
Reptilia	Sauria	Lacertidae	<i>Psammodromus hispanicus</i>	LC	Y
Reptilia	Sauria	Lacertidae	<i>Psammodromus microdactylus</i>	EN	Y
Reptilia	Sauria	Lacertidae	<i>Psammodromus occidentalis</i>	NE	Y
Reptilia	Sauria	Lacertidae	<i>Psammophis aegyptius</i>	LC	N

Class	Order	Family	Species	IUCN Red List category	Endemic (Yes/No)
Reptilia	Sauria	Lacertidae	<i>Psammophis biseriatus</i>	NE	N
Reptilia	Sauria	Lacertidae	<i>Psammophis rukwae</i>	LC	N
Reptilia	Sauria	Lacertidae	<i>Psammophis schokari</i>	LC	N
Reptilia	Sauria	Lacertidae	<i>Psammophis sibilans</i>	LC	N
Reptilia	Sauria	Lacertidae	<i>Psammophis tanganicus</i>	NE	N
Reptilia	Sauria	Lacertidae	<i>Pseuderemias mucronata</i>	DD	N
Reptilia	Sauria	Lacertidae	<i>Scelarcis perspicillata</i>	LC	Y
Reptilia	Sauria	Lacertidae	<i>Teira dugesii</i>	LC	Y
Reptilia	Sauria	Lacertidae	<i>Timon kurdistanicus</i>	LC	N
Reptilia	Sauria	Lacertidae	<i>Timon lepidus</i>	NT	Y
Reptilia	Sauria	Lacertidae	<i>Timon nevadensis</i>	NE	Y
Reptilia	Sauria	Lacertidae	<i>Timon pater</i>	LC	Y
Reptilia	Sauria	Lacertidae	<i>Timon princeps</i>	LC	Y
Reptilia	Sauria	Lacertidae	<i>Timon tangitanus</i>	LC	Y
Reptilia	Sauria	Lacertidae	<i>Zootoca vivipara</i>	LC	N
Reptilia	Sauria	Lacertidae	<i>Acanthodactylus ahmaddisii</i>	EN	N
Reptilia	Sauria	Lacertidae	<i>Acanthodactylus aureus</i>	LC	N
Reptilia	Sauria	Lacertidae	<i>Acanthodactylus bedriagai</i>	NT	Y
Reptilia	Sauria	Lacertidae	<i>Acanthodactylus beershebensis</i>	CR	Y
Reptilia	Sauria	Phyllodactylidae	<i>Asaccus barani</i>	NE	Y
Reptilia	Sauria	Phyllodactylidae	<i>Ptyodactylus ananjevae</i>	NE	Y
Reptilia	Sauria	Phyllodactylidae	<i>Ptyodactylus guttatus</i>	LC	N
Reptilia	Sauria	Phyllodactylidae	<i>Ptyodactylus hasselquistii</i>	LC	N
Reptilia	Sauria	Phyllodactylidae	<i>Ptyodactylus oudrii</i>	LC	Y
Reptilia	Sauria	Phyllodactylidae	<i>Ptyodactylus puiseuxi</i>	LC	N
Reptilia	Sauria	Phyllodactylidae	<i>Ptyodactylus ragazzii</i>	LC	N
Reptilia	Sauria	Scincidae	<i>Chalcides bedriagai</i>	NT	Y
Reptilia	Sauria	Scincidae	<i>Chalcides boulengeri</i>	NE	N
Reptilia	Sauria	Scincidae	<i>Chalcides chalcides</i>	LC	Y
Reptilia	Sauria	Scincidae	<i>Chalcides colosii</i>	LC	Y
Reptilia	Sauria	Scincidae	<i>Chalcides ebneri</i>	CR	Y
Reptilia	Sauria	Scincidae	<i>Chalcides guentheri</i>	VU	Y
Reptilia	Sauria	Scincidae	<i>Chalcides lanzai</i>	NT	Y

Class	Order	Family	Species	IUCN Red List category	Endemic (Yes/No)
Reptilia	Sauria	Scincidae	<i>Chalcides manueli</i>	VU	Y
Reptilia	Sauria	Scincidae	<i>Chalcides mauritanicus</i>	EN	Y
Reptilia	Sauria	Scincidae	<i>Chalcides mertensi</i>	LC	Y
Reptilia	Sauria	Scincidae	<i>Chalcides minutus</i>	VU	Y
Reptilia	Sauria	Scincidae	<i>Chalcides mionecton</i>	LC	Y
Reptilia	Sauria	Scincidae	<i>Chalcides montanus</i>	NT	Y
Reptilia	Sauria	Scincidae	<i>Chalcides ocellatus</i>	LC	Y
Reptilia	Sauria	Scincidae	<i>Chalcides parallelus</i>	EN	Y
Reptilia	Sauria	Scincidae	<i>Chalcides polylepis</i>	LC	Y
Reptilia	Sauria	Scincidae	<i>Chalcides pseudostriatus</i>	NT	Y
Reptilia	Sauria	Scincidae	<i>Chalcides sepsoides</i>	LC	Y
Reptilia	Sauria	Scincidae	<i>Chalcides sexlineatus</i>	LC	Y
Reptilia	Sauria	Scincidae	<i>Chalcides sphenopsiformis</i>	LC	N
Reptilia	Sauria	Scincidae	<i>Chalcides striatus</i>	LC	Y
Reptilia	Sauria	Scincidae	<i>Chalcides viridanus</i>	LC	Y
Reptilia	Sauria	Scincidae	<i>Eumeces algeriensis</i>	LC	Y
Reptilia	Sauria	Scincidae	<i>Eumeces schneideri</i>	LC	N
Reptilia	Sauria	Scincidae	<i>Eurylepis taeniolata</i>	NE	N
Reptilia	Sauria	Scincidae	<i>Heremites auratus</i>	NE	N
Reptilia	Sauria	Scincidae	<i>Ophiomorus latastii</i>	DD	Y
Reptilia	Sauria	Scincidae	<i>Ophiomorus punctatissimus</i>	LC	Y
Reptilia	Sauria	Scincidae	<i>Scincopus fasciatus</i>	DD	N
Reptilia	Sauria	Scincidae	<i>Scincus albifasciatus</i>	LC	N
Reptilia	Sauria	Scincidae	<i>Scincus scincus</i>	LC	N
Reptilia	Sauria	Scincidae	<i>Trachylepis quinquetaeniata</i>	LC	N
Reptilia	Sauria	Scincidae	<i>Ablepharus budaki</i>	LC	Y
Reptilia	Sauria	Scincidae	<i>Ablepharus chernovi</i>	LC	N
Reptilia	Sauria	Scincidae	<i>Ablepharus kitaibelii</i>	LC	N
Reptilia	Sauria	Scincidae	<i>Ablepharus rueppellii</i>	LC	Y
Reptilia	Sauria	Varanidae	<i>Varanus griseus</i>	LC	N
Reptilia	Sauria	Varanidae	<i>Varanus niloticus</i>	LC	N
Reptilia	Ophidia	Atractaspidae	<i>Atractaspis engaddensis</i>	LC	N
Reptilia	Ophidia	Atractaspidae	<i>Micrelaps muelleri</i>	LC	Y

Class	Order	Family	Species	IUCN Red List category	Endemic (Yes/No)
Reptilia	Ophidia	Atractaspididae	<i>Micrelaps tchernovi</i>	NE	Y
Reptilia	Ophidia	Boidae	<i>Eryx colubrinus</i>	NE	N
Reptilia	Ophidia	Boidae	<i>Eryx jaculus</i>	LC	N
Reptilia	Ophidia	Colubridae	<i>Coronella austriaca</i>	LC	N
Reptilia	Ophidia	Colubridae	<i>Coronella girondica</i>	LC	Y
Reptilia	Ophidia	Colubridae	<i>Dasypeltis scabra</i>	LC	N
Reptilia	Ophidia	Colubridae	<i>Dolichophis caspius</i>	LC	N
Reptilia	Ophidia	Colubridae	<i>Dolichophis cypriensis</i>	EN	Y
Reptilia	Ophidia	Colubridae	<i>Dolichophis jugularis</i>	LC	N
Reptilia	Ophidia	Colubridae	<i>Dolichophis schmidtii</i>	LC	N
Reptilia	Ophidia	Colubridae	<i>Eirenis aurolineatus</i>	LC	Y
Reptilia	Ophidia	Colubridae	<i>Eirenis barani</i>	LC	Y
Reptilia	Ophidia	Colubridae	<i>Eirenis collaris</i>	LC	N
Reptilia	Ophidia	Colubridae	<i>Eirenis coronella</i>	LC	N
Reptilia	Ophidia	Colubridae	<i>Eirenis coronelloides</i>	LC	N
Reptilia	Ophidia	Colubridae	<i>Eirenis decemlineatus</i>	LC	Y
Reptilia	Ophidia	Colubridae	<i>Eirenis eiselti</i>	LC	Y
Reptilia	Ophidia	Colubridae	<i>Eirenis hakkariensis</i>	DD	N
Reptilia	Ophidia	Colubridae	<i>Eirenis levantinus</i>	LC	Y
Reptilia	Ophidia	Colubridae	<i>Eirenis lineomaculatus</i>	LC	Y
Reptilia	Ophidia	Colubridae	<i>Eirenis modestus</i>	LC	N
Reptilia	Ophidia	Colubridae	<i>Eirenis occidentalis</i>	NE	Y
Reptilia	Ophidia	Colubridae	<i>Eirenis persicus</i>	LC	N
Reptilia	Ophidia	Colubridae	<i>Eirenis punctatolineatus</i>	LC	N
Reptilia	Ophidia	Colubridae	<i>Eirenis rothii</i>	LC	Y
Reptilia	Ophidia	Colubridae	<i>Eirenis thospitis</i>	DD	Y
Reptilia	Ophidia	Colubridae	<i>Elaphe quatuorlineata</i>	NT	Y
Reptilia	Ophidia	Colubridae	<i>Elaphe sauromates</i>	LC	N
Reptilia	Ophidia	Colubridae	<i>Hemorrhois algirus</i>	LC	Y
Reptilia	Ophidia	Colubridae	<i>Hemorrhois hippocrepis</i>	LC	N
Reptilia	Ophidia	Colubridae	<i>Hemorrhois nummifer</i>	LC	N
Reptilia	Ophidia	Colubridae	<i>Hemorrhois ravergeri</i>	LC	N
Reptilia	Ophidia	Colubridae	<i>Hierophis gemonensis</i>	LC	Y

Class	Order	Family	Species	IUCN Red List category	Endemic (Yes/No)
Reptilia	Ophidia	Colubridae	<i>Hierophis viridiflavus</i>	LC	Y
Reptilia	Ophidia	Colubridae	<i>Lycophidion capense</i>	LC	N
Reptilia	Ophidia	Colubridae	<i>Lytorhynchus diadema</i>	LC	N
Reptilia	Ophidia	Colubridae	<i>Macroprotodon abubakeri</i>	DD	Y
Reptilia	Ophidia	Colubridae	<i>Macroprotodon brevis</i>	NT	Y
Reptilia	Ophidia	Colubridae	<i>Macroprotodon cucullatus</i>	LC	Y
Reptilia	Ophidia	Colubridae	<i>Macroprotodon mauritanicus</i>	NE	Y
Reptilia	Ophidia	Colubridae	<i>Malpolon insignitus</i>	NE	N
Reptilia	Ophidia	Colubridae	<i>Malpolon monspessulanus</i>	LC	N
Reptilia	Ophidia	Colubridae	<i>Muhtarophis barani</i>	NE	Y
Reptilia	Ophidia	Colubridae	<i>Platyceps collaris</i>	LC	Y
Reptilia	Ophidia	Colubridae	<i>Platyceps elegantissimus</i>	DD	N
Reptilia	Ophidia	Colubridae	<i>Platyceps florulentus</i>	LC	N
Reptilia	Ophidia	Colubridae	<i>Platyceps najadum</i>	LC	N
Reptilia	Ophidia	Colubridae	<i>Platyceps rhodorachis</i>	LC	N
Reptilia	Ophidia	Colubridae	<i>Platyceps rogersi</i>	LC	N
Reptilia	Ophidia	Colubridae	<i>Platyceps sinai</i>	DD	Y
Reptilia	Ophidia	Colubridae	<i>Platyceps tessellata</i>	NE	Y
Reptilia	Ophidia	Colubridae	<i>Platyceps ventromaculatus</i>	LC	N
Reptilia	Ophidia	Colubridae	<i>Rhagerhis moilensis</i>	NE	N
Reptilia	Ophidia	Colubridae	<i>Rhynchocalamus melanocephalus</i>	LC	N
Reptilia	Ophidia	Colubridae	<i>Rhynchocalamus satunini</i>	NE	N
Reptilia	Ophidia	Colubridae	<i>Spalerosophis diadema</i>	LC	N
Reptilia	Ophidia	Colubridae	<i>Spalerosophis dolichospilus</i>	DD	Y
Reptilia	Ophidia	Colubridae	<i>Telescopus dhara</i>	LC	N
Reptilia	Ophidia	Colubridae	<i>Telescopus fallax</i>	LC	N
Reptilia	Ophidia	Colubridae	<i>Telescopus hoogstraali</i>	EN	Y
Reptilia	Ophidia	Colubridae	<i>Telescopus nigriceps</i>	LC	N
Reptilia	Ophidia	Colubridae	<i>Telescopus obtusus</i>	NE	N
Reptilia	Ophidia	Colubridae	<i>Telescopus tripolitanus</i>	NE	N
Reptilia	Ophidia	Colubridae	<i>Zamenis hohenackeri</i>	LC	N
Reptilia	Ophidia	Colubridae	<i>Zamenis lineatus</i>	DD	Y
Reptilia	Ophidia	Colubridae	<i>Zamenis longissimus</i>	LC	N

Class	Order	Family	Species	IUCN Red List category	Endemic (Yes/No)
Reptilia	Ophidia	Colubridae	<i>Zamenis scalaris</i>	NE	Y
Reptilia	Ophidia	Colubridae	<i>Zamenis situla</i>	LC	N
Reptilia	Ophidia	Elapidae	<i>Naja haje</i>	LC	N
Reptilia	Ophidia	Elapidae	<i>Naja nubiae</i>	LC	N
Reptilia	Ophidia	Elapidae	<i>Naja pallida</i>	NE	N
Reptilia	Ophidia	Elapidae	<i>Walterinnesia aegyptia</i>	LC	N
Reptilia	Ophidia	Elapidae	<i>Walterinnesia morgani</i>	NE	N
Reptilia	Ophidia	Lamprophiidae	<i>Boaedon fuliginosus</i>	NE	N
Reptilia	Ophidia	Leptotyphlopidae	<i>Myriopholis algeriensis</i>	LC	N
Reptilia	Ophidia	Leptotyphlopidae	<i>Myriopholis cairi</i>	NE	N
Reptilia	Ophidia	Leptotyphlopidae	<i>Myriopholis macrorhyncha</i>	NE	N
Reptilia	Ophidia	Natricidae	<i>Natrix maura</i>	LC	Y
Reptilia	Ophidia	Natricidae	<i>Natrix natrix</i>	LC	N
Reptilia	Ophidia	Natricidae	<i>Natrix tessellata</i>	LC	N
Reptilia	Ophidia	Typhlopidae	<i>Letheobia episcopus</i>	DD	Y
Reptilia	Ophidia	Typhlopidae	<i>Letheobia simonii</i>	LC	Y
Reptilia	Ophidia	Typhlopidae	<i>Xerotyphlops vermicularis</i>	NE	N
Reptilia	Ophidia	Viperidae	<i>Bitis arietans</i>	LC	N
Reptilia	Ophidia	Viperidae	<i>Cerastes boehmei</i>	NE	Y
Reptilia	Ophidia	Viperidae	<i>Cerastes cerastes</i>	LC	N
Reptilia	Ophidia	Viperidae	<i>Cerastes gasperettii</i>	LC	N
Reptilia	Ophidia	Viperidae	<i>Cerastes vipera</i>	LC	N
Reptilia	Ophidia	Viperidae	<i>Daboia deserti</i>	NT	Y
Reptilia	Ophidia	Viperidae	<i>Daboia mauritanica</i>	NT	Y
Reptilia	Ophidia	Viperidae	<i>Daboia palaestinae</i>	LC	Y
Reptilia	Ophidia	Viperidae	<i>Echis coloratus</i>	LC	N
Reptilia	Ophidia	Viperidae	<i>Echis leucogaster</i>	LC	N
Reptilia	Ophidia	Viperidae	<i>Echis pyramidum</i>	LC	N
Reptilia	Ophidia	Viperidae	<i>Macrovipera lebetina</i>	LC	N
Reptilia	Ophidia	Viperidae	<i>Macrovipera schweizeri</i>	EN	Y
Reptilia	Ophidia	Viperidae	<i>Montivipera albizona</i>	EN	Y
Reptilia	Ophidia	Viperidae	<i>Montivipera bornmuelleri</i>	EN	Y
Reptilia	Ophidia	Viperidae	<i>Montivipera bulgardaghica</i>	LC	Y

Class	Order	Family	Species	IUCN Red List category	Endemic (Yes/No)
Reptilia	Ophidia	Viperidae	<i>Montivipera raddei</i>	NT	N
Reptilia	Ophidia	Viperidae	<i>Montivipera xanthina</i>	LC	Y
Reptilia	Ophidia	Viperidae	<i>Pseudocerastes fieldi</i>	LC	N
Reptilia	Ophidia	Viperidae	<i>Vipera ammodytes</i>	LC	N
Reptilia	Ophidia	Viperidae	<i>Vipera anatolica</i>	EN	Y
Reptilia	Ophidia	Viperidae	<i>Vipera aspis</i>	LC	N
Reptilia	Ophidia	Viperidae	<i>Vipera barani</i>	NT	Y
Reptilia	Ophidia	Viperidae	<i>Vipera berus</i>	LC	N
Reptilia	Ophidia	Viperidae	<i>Vipera latastei</i>	NT	Y
Reptilia	Ophidia	Viperidae	<i>Vipera monticola</i>	NT	Y
Reptilia	Ophidia	Viperidae	<i>Vipera seoanei</i>	LC	Y
Reptilia	Ophidia	Viperidae	<i>Vipera ursinii</i>	VU	N
Reptilia	Ophidia	Viperidae	<i>Vipera walser</i>	NE	Y
Crocodylia	Crocodylia	Crocodylidae	<i>Crocodylus niloticus</i>	LC	N

Author details

Kerim Çiçek* and Oğzukan Cumhuriyet

*Address all correspondence to: kerim.cicek@ege.edu.tr

Zoology Section, Department of Biology, Faculty of Science, Ege University, Izmir, Turkey

References

- [1] Blondel J, Aronson J, Bodiou J-Y, Boeuf G. The Mediterranean Region: Biological Diversity in Space and Time. 1st ed. New York: Oxford University Press Inc; 2010. 376 p. DOI: 978-0-19-955798-1
- [2] Communities E. Natura 2000 in the Mediterranean Region. 1st ed. Luxembourg: Office for Official Publications of the European Communities; 2009. 12 p. DOI: 10.2779/77695
- [3] Arnold C. Mediterranean Islands, 1st ed. London: Survival Books; 2008. 416 p. DOI: 978-0955648915
- [4] Mittermeier RA, Turner WR, Larsen FW, Brooks TM, Gascon C. Global biodiversity conservation: The critical role of hotspots. In: Zachos FE, Habel JC, editors. Biodiversity

Hotspots: Distribution and Protection of Conservation Priority Areas. 1st ed. Heidelberg: Springer; 2011. p. 3-22. DOI: 783642209918

- [5] Cox N, Chanson J, Stuart S. The Status and Distribution of Reptiles and Amphibians of the Mediterranean Basin, 1st ed. Switzerland and Cambridge: IUCN; 2006. 42 p. DOI: 978-2-8317-0912-3
- [6] AmphibiaWeb. AmphibiaWeb [Internet]. 2017 [Updated: 2017]. Available from: <http://amphibiaweb.org> [Accessed: March 27, 2017]
- [7] Uetz P, Freed P, Hošek J. The Reptile Database [Internet]. 2017 [Updated: 2017]. Available from: <http://reptile-database.org> [Accessed: March 27, 2017]
- [8] IUCN. The IUCN Red List of Threatened Species [Internet]. 2017 [Updated: 2017]. Available from: <http://www.iucnredlist.org/> [Accessed: March 27, 2017]
- [9] Whitfield SM, de ScottRyan TJ, Buhlmann KA, Tuberville TD, Metts BS, Greene JL, Mills T, Leiden Y, Poppy S. The global decline of reptiles, déjà amphibians. *BioScience*. 2000;**50**(8):53-666
- [10] Cuttelod A, García N, Abdul Malak D, Temple H, Katariya V. The Mediterranean: A biodiversity hotspot under threat. In: Vié J-C, Hilton-Taylor C, Stuart SN, editors. The 2008 Review of The IUCN Red List of Threatened Species. 1st ed. Switzerland: IUCN Gland; 2008. p. 1. DOI: 978-2-8317-1063-1
- [11] Barahona F, Evans SE, Mateo JA, García-Márquez M, López-Jurado LF. Endemism, gigantism and extinction in island lizards: the genus *Gallotia* on the Canary Islands. *Journal of Zoology*. 2000;**250**(3):373-388
- [12] Cox SC, Carranza S, Brown RP. Divergence times and colonization of the Canary Islands by *Gallotia* lizards. *Molecular Phylogenetics & Evolution*. 2010;**56**:747-757
- [13] IUCN SSC Amphibian Specialist Group. *Latonia nigriventer*. The IUCN Red List of Threatened Species 2012: e.T6715A13339841 [Internet]. [Updated: 2012] Available from: <http://dx.doi.org/10.2305/IUCN.UK.2012-1.RLTS.T6715A13339841.en> [Accessed: 08 April 2017]
- [14] Salafsky N, Salzer D, Stattersfield AJ, Hilton-Taylor C, Neugarten R, Butchart SHM, Collen B, Cox N, Master LL, O'Connor S, Wilkie D. A standard lexicon for biodiversity conservation: Unified classifications of threats and actions. *Conservation Biology*. 2007;**22**:897-911. DOI: 10.1111/j.1523-1739.2008.00937.x
- [15] Blue Plan. The Blue Plan's Sustainable Development Outlook for the Mediterranean. 1st ed. Sophia Antipolis, France: UNEP Blue Plan Activity Centre; 2008. 26 p

