

Species list of Amphibians and Reptiles from Turkey

Muammer Kurnaz 

Gümüşhane University, Kelkit Vocational School of Health Services, Department of Medical Services and Techniques 29600, Kelkit / Gümüşhane, Turkey

*Corresponding author : muammerkurnaz@gmail.com

Abstract

Turkey is biogeographically diverse and consequently has a rich herpetofauna. As a result of active herpetological research, the number of species has steadily increased in recent years. I present here a new checklist of amphibian and reptile species distributed in Turkey, revising the nomenclature to reflect the latest taxonomic knowledge. In addition, information about the systematics of many species is also given. In total 35 (19.4%) amphibian and 145 (80.6%) reptile species comprise the Turkish herpetofauna. Among amphibians, 16 (45.7%) anurans and 19 urodelaans (54.3%) are present. Among reptiles, 11 (7.6%) testudines, 71 (49%) saurians, 3 (2.1%) amphisbaenians and 60 (41.3%) ophidians are considered part of the herpetofauna. The endemism rate in Turkey is considered relatively high with a total of 34 species (12 amphibian species – 34.3% and 22 reptile species – 15.2%) endemic to Turkey, yielding a total herpetofaunal endemism of 18.9%. While 38 species have not been threat-assessed by the IUCN, 92 of the 180 Turkish herpetofaunal species are of Least Concern (LC), 13 are Near Threatened (NT), 10 are Vulnerable (VU), 14 are Endangered (EN), and 7 are Critically Endangered (CR). In addition, 6 species are in the DD (Data Deficient) category.

Received: 8 October 2020

Accepted: 23 December 2020

Published online: 31 January 2021

Key words: Amphibia, Reptilia, species list, herpetodiversity, Turkey

Introduction

Turkey lies near the intersection of Asia, Europe, and Africa, which contributes to its rich biodiversity (Şekercioğlu et al., 2011; Gür, 2016; Tavşanoğlu, 2016). A key factor, with an important influence on species diversity, is that the country includes significant parts of three biodiversity hotspots, namely, the Mediterranean, Iran-Turan and Caucasian (Mittermeier et al., 2004). Turkey also straddles two major geographical areas (Euro-Siberian and Eastern Mediterranean) from a herpetological perspective (Ficetola et al., 2018). In addition, the isolation created by the Anatolian diagonal, formed by high mountain ranges, and by the mountains separating the northeast and the south (west) play a crucial role in increasing this diversity (Rokas et al., 2003; Gündüz et al., 2007; Mutun, 2010; Vamberger et al., 2013; Korkmaz et al., 2014).

The Turkish herpetofauna is rich, with 180 verified species, or about 60% of the total present in the entire European continent (Speybroeck et al., 2020).

Thirty-five of these 180 species are amphibians and the rest are reptiles (Frost, 2020; Uetz et al., 2020; <https://amphibiaweb.org>; <https://www.lacerta.de>). The herpetofaunal list is frequently updated as a result of new expeditions and/or local faunistic surveys and phylogenetic studies.

Herpetological studies in Turkey date back to Linnaeus (1758) with the description of *Hemidactylus turcicus* (Linnaeus, 1758) and have continued for more than a quarter of a millennium. Surveys were carried out during the first half of the 20th century by herpetologists such as Werner (1902), Bodenheimer (1944) and Mertens (1952), and checklists of Turkish amphibians and reptiles were generated by these initiatives, yielding a list of 85 species. In the following years, the number of amphibian and reptile species in Turkey has almost doubled through the activities of new researchers and their expeditions. Subsequently, separate species lists have been created for amphibians (Başoğlu and Özeti, 1973) and reptiles (Başoğlu and Baran, 1977; 1980; Sindaco et al., 2000); the most comprehensive

list being that of Baran et al. (2012), including 157 species. However, this list needs to be updated based on the latest explorations and output of biogeographic studies. At the same time, names of many species have changed in accordance with recent molecular-based systematic evaluations. Thus, there is a need for an updated source that provides the currently recognized names of the Turkish herpetofaunal species.

The fundamental aims of this study are: i) to give information about recent changes to the taxonomic status of amphibian and reptile species of Turkey, and ii) to bring together an authoritative list of all amphibians and reptiles in Turkey in one available resource.

Material and Methods

The area considered in this study lies within the political boundaries of Turkey, between 26–45° Eastern Longitudes and 36–42° Northern Latitudes, including the Anatolian and Thracian Peninsulas of Turkey (Fig. 1). A list of all the species in the herpetofauna of Turkey was compiled and evaluated in light of the current literature. Data on taxonomically relevant variation (subspecies), endemism status, chorotypes, and IUCN status (DD-Data Deficient; LC-Least Concern; NT-Near Threatened; VU-Vulnerable; EN-Endangered; CR-Critically Endangered) of all the listed species in Turkey were assembled. The chorotypes and IUCN status of the species are given according to the most recent global assessments (Sindaco et al., 2000, 2013; IUCN, 2020).

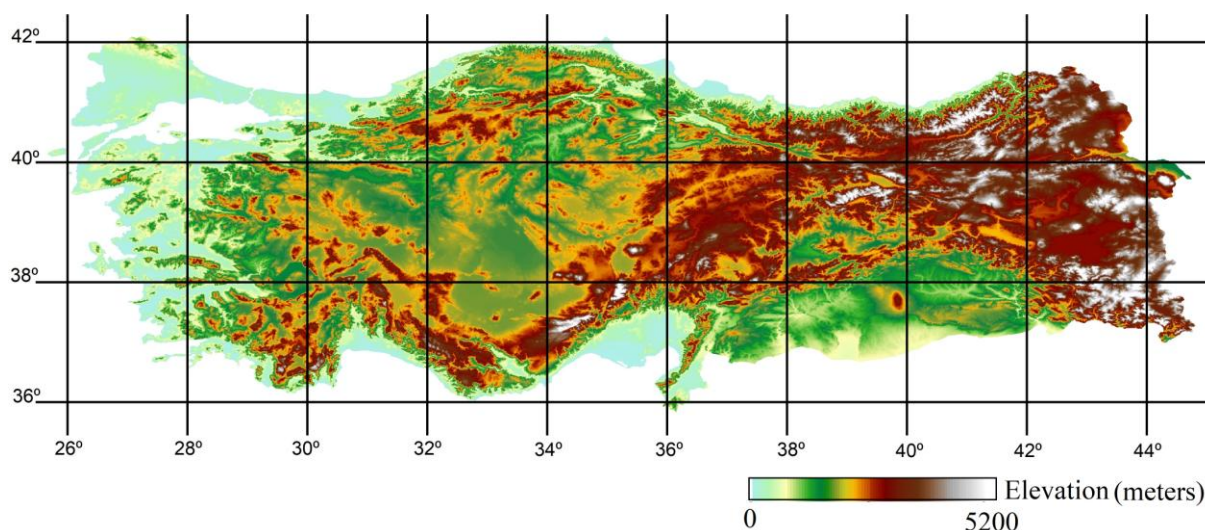


Figure 1: Physical map of Turkey.

Results and Discussion

Amphibians

Thirty-five amphibian species are distributed in Turkey, comprising 16 (45.7%) in the Order Anura and 19 (54.3%) in the Order Urodela. The endemism rate in amphibian species in Turkey is very high, with 12 amphibian species (34.3%) unique to Turkey.

The genus *Bombina* Oken, 1816 was previously represented by only a single species, *B. bombina* (Linnaeus, 1761). A second species, *B. variegata* (Linnaeus, 1758) was recently reported in Turkey by Bülbül et al. (2016). Although the first record of the species in Turkey was given by Boulenger (1897), he did not provide any information about its exact locality. It was more than a century before locality information in Turkey was obtained. The first precise locality record was given by Bülbül et al. (2016) in Enez, Edirne (Lake Gala) and the species has

subsequently been recorded from two more localities in Enez by Bülbül et al. (2018).

Bufo bufo (Linnaeus, 1758) and *Bufo verrucosissimus* (Pallas, 1814) are two toad species distributed in Turkey. In the literature, it has been stated that the distribution boundaries and the taxonomic status of these two taxa are still uncertain. Although García-Porta et al. (2012) reported that these taxa were two subspecies of *B. bufo*, Arntzen et al. (2013) rejected this proposal because they downgraded *B. verrucosissimus* to the subspecies level of *B. bufo*. According to a recent study based on phylogenetic data, two main clades of common toads are living in Turkey, and morphological data is also compatible with this phylogeny (Özdemir et al., 2020). On this basis, it is accepted that these two taxa should be evaluated as two separate species.

Bufo Rafinesque 1815, which was previously included under the genus *Bufo*, was evaluated as

Pseudepidalea after the revision of Frost et al. (2006). Later it was reported that *Pseudepidalea* was a junior synonym of *Bufo* (Dubois and Bour, 2010). This genus is represented by 15 species worldwide (Dufresnes, 2019). Only two species, *Bufo sitibundus* (Pallas, 1771) and *Bufo viridis* (Laurenti, 1768) occur in Turkey (Dufresnes et al., 2019). Up until 2019, all populations in Turkey were known as *B. variabilis* (Özdemir et al., 2014). However, according to a recent phylogenetic study, specimens in all regions of the Anatolian Peninsula, except the Northernwest part (Çanakkale), are *Bufo sitibundus* (Pallas, 1771) and those in Thrace and Çanakkale are *B. viridis* (Laurenti, 1768) (Dufresnes et al., 2019), a senior synonym of *B. variabilis*.

The Anatolian mountain frogs were represented by four species, including *Rana camerani* Boulenger, 1886, *R. holtzi* Werner, 1898, *R. macrocnemis* Boulenger, 1885, and *R. tavasensis* Baran and Atatür, 1986, in previous studies (Baran and Atatür, 1998; Baran et al, 2012). According to Picariello et al. (1999), *R. camerani*, *R. holtzi* and *R. macrocnemis* are part of one species-complex (*R. macrocnemis*) based on satellite DNA and morphological features. Additionally, Veith et al. (2003) reported the existence of two species, *R. macrocnemis* and *R. tavasensis* within the Anatolian mountain frogs based on 16S rRNA and they reported *R. holtzi* and *R. camerani* to be conspecific with *R. macrocnemis*. However, another study reported *R. holtzi* was a distinct species from *R. macrocnemis* based on blood serum and some morphological characters (Çevik et al., 2006). Most recently, Ergül-Kalaycı et al. (2017) supported the interpretation of Veith et al. (2003), that the Anatolian mountain frogs were represented by two distinct species namely *R. macrocnemis* and *R. tavasensis*.

Until 2009, the genus *Lissotriton* Bell, 1839 was represented in Turkey by a single species, *Lissotriton vulgaris* (Linnaeus, 1758) with three subspecies (*L. v. kosswigi*, *L. v. lantzi* and *L. v. schmidleri*). Dubois and Raffaelli (2009) discussed their reasoning for recognizing *Lissotriton vulgaris kosswigi* and *L. v. lantzi* as distinct from *L. vulgaris* and they have since been considered as different species. *Lissotriton lantzi* (Wolterstorff, 1914) was accepted on the Turkish amphibian list, because there was a historic locality record in Artvin from Louis Amédée Lantz in 1911. These specimens are still extant as ZISP (Zoological Museum in St. Petersburg) 3187 (Skorinov et al., 2014). Wielstra et al. (2015) suggested that *Lissotriton schmidleri* (Raxworthy, 1988) might be a distinct species and discussed its allopatric distribution relative to *Lissotriton kosswigi* (Freitag, 1955). The latest phylogenetic study has demonstrated that *L. schmidleri* is a distinct species (Pabijan et al., 2017). As a result of this taxonomic study, it has been revealed that three different species, belonging to the genus *Lissotriton*, exist in Turkey.

The genus *Neurergus* Cope, 1862 is represented by three species in Turkey, *Neurergus barani* (Öz, 1994), *N. crocatus* Cope, 1862 and *N. strauchii* (Steindachner, 1887). However, *N. strauchii* was classified as a subspecies of *N. crocatus* for a long time by different authors (Schmidt, 1939; Bodenheimer, 1944; Başoğlu and Özeti, 1973). Schmidler and Schmidler (1975) reported that *N. crocatus* and *N. strauchii* were two distinct species in terms of morphological characters. Two subspecies of *N. strauchii* have been recognized (*N. s. barani* Öz, 1994 and *N. s. munzurenensis* Olgun, Avcı, Bozkurt, Üzümlü, Olgun, and Ilgaz, 2016) (Öz, 1994; Olgun et al., 2016). The former was treated as a subspecies in the first phylogenetic study following its description (Özdemir et al., 2009), however, Rancilhac et al. (2019) demonstrated that *N. barani* Öz, 1994 is specifically distinct from *N. strauchii* and is isolated around Kubbe Mountains, west of the Euphrates River. *Neurergus s. munzurenensis* has not yet been phylogenetically studied. The biogeography of *Neurergus* in Turkey has shown that the Cilo Mountains were a barrier between *N. strauchii* and *N. crocatus* and that the Euphrates River was a barrier between *N. barani* and *N. strauchii*.

According to Lithvinchuk et al. (2005), *Ommatotriton* Gray, 1850 was represented by two species in Turkey, *O. vittatus* (Gray, 1835) in the south and *O. ophryticus* (Berthold, 1846) in the north of country. In addition, Lithvinchuk et al. (2005) concluded that the northern populations of *Ommatotriton* reflected a dichotomy, and that the north east populations should be treated as *O. o. ophryticus* (Berthold, 1846), and the north west populations should be described as *O. o. nesterovi* Litvinchuk, Zuiderwijk, Borkin, and Rosanov, 2005. *Ommatotriton nesterovi* was initially recognized as a distinct species from *O. ophryticus*, based on morphological data and mitochondrial DNA by Bülbül and Kutrup (2013). Afterwards, this study was expanded, validated, and more precisely documented by Van Riemsdijk et al. (2017). As a result of these studies, it was concluded that there are three different species of *Ommatotriton* in Turkey. Within these species, *O. nesterovi* is distributed in southern Anatolia, whereas the other two species occur in northern Anatolia (van Riemsdijk et al., 2017). It is thought that the Kızılırmak River is a geographical barrier between the two species living in the north (Bülbül and Kutrup, 2013).

Genus *Triturus* Rafinesque, 1815 was represented in Turkey by only one species, *Triturus karelinii* (Strauch, 1870) until recently. Wielstra et al. (2012) proposed that *T. karelinii* should be divided into three mitochondrial species groups (western, central, and eastern). As a result, Wielstra et al. (2013) described a morphologically distinct new species as *Triturus ivanbureschi* Arntzen and Wielstra, 2013 in the western *T. karelinii* group. Later, Wielstra and

Arntzen (2016) described a new species as *Triturus anatolicus* Wielstra and Arntzen (2016) in the central *T. karelinii* group. Although *Triturus karelinii* was separated into three different species as the result of recent phylogenetic studies, the occurrence of only two species (*T. anatolicus* and *T. ivanbureschi*) was reported from Turkey (Wielstra et al., 2012; 2013; Wielstra and Arntzen, 2016). Therefore, *T. karelinii* sensu stricto is not currently verified as being included in the Turkish herpetofauna.

There were six described species and nine undescribed taxa of *Lyciasalamandra* that were considered to occur in Turkey until 2011. *Lyciasalamandra arikani* Göçmen and Akman, 2012, *L. irfani* Göçmen, Arıkan, and Yalçinkaya, 2011, and *L. yehudahi* Göçmen and Akman, 2012 were then proposed as full species for the Turkish herpetofauna (Göçmen et al., 2011; Göçmen and Akman, 2012). However, Veith et al. (2016) concluded that these three taxa were subspecies of *Lyciasalamandra billae* (Franzen and Klewen, 1987). According to Veith et al. (2016) *Lyciasalamandra* comprises 20 taxa, six of which are full species distributed in Turkey.

Reptiles

In this checklist 145 reptilian species are recorded from Turkey, including 11 (7.6%) testudines, 71 (49%) saurians, 3 (2.1%) amphisbaenians and 60 (41.3%) ophidians. Endemism in reptile species in Turkey is relatively high, with 22 species (15.2%) unique to Turkey.

Based on morphological data, three *Testudo* species are found in Turkey: *Testudo graeca* Linnaeus, 1758, *T. hermanni* Gmelin, 1789, and *T. perses* Perälä, 2002 (Baran et al., 2012). Although *T. graeca* and *T. hermanni* have been known for a long time in Turkey, *T. perses* was recorded in 2004 from Hakkari for the first time (Türkozan et al., 2004). In studies including all populations of *T. graeca* distributed in Turkey, DNA samples were examined phylogenetically, and four clades were identified, *T. g. armeniaca* Chkhikvadze and Bakradze 1991, *T. g. buxtoni* Boulenger 1921, *T. g. ibera* Pallas 1814, and *T. g. terrestris* Forskål 1775 (Fritz et al., 2007; Türkozan et al., 2018). In addition, the authors indicated that the taxon previously reported as *T. perses* was a member of the *buxtoni* group. For this reason, *T. perses* is here considered as a synonym of *T. g. buxtoni* subspecies (Fritz et al., 2007; Türkozan et al., 2018). Thus, only two species (*T. graeca* and *T. hermanni*) need to be addressed in the species list of Turkey.

The origin of *Trachymys scripta* (Thunberg in Schoepff, 1792) is the American continent. It is a species that came to Turkey with the pet trade, was released to nature by irresponsible owners, and has started to breed in inland waters (Çiçek and Ayaz, 2015). *Trachymys scripta* can compete with native species in terms of food sources and this invasive exotic is increasing in population size and expanding

its distribution range. It was already considered as one of the worst 100 alien invasive species by the IUCN (IUCN, 2020). Reproduction in a population of *T. scripta* in the wild was reported from southern Anatolia (Anamur, Mersin) for the first time (Çiçek and Ayaz, 2015), and because of this, this invasive reptile species was added to the species list.

The Family Agamidae is represented by four genera and species in Turkey. The taxonomic status of the genera *Stellagama* Baig, Wagner, Anajeva and Böhme, 2012 and *Paralaudakia* Baig, Wagner, Anajeva and Böhme, 2012, previously included within the genus *Laudakia* Gray, 1845, remains controversial. One of the reasons for this controversy is that the results of a phylogenetic study based on the mitochondrial genome, reported that *Laudakia* is paraphyletic (Macey et al., 2000). However, other studies, based on both the mitochondrial and nuclear genes, concluded that *Laudakia* is monophyletic (Melville et al., 2009; Edwards and Melville, 2011). Following these studies, Baig et al. (2012) conducted a morphologically-based study and as a result, *Laudakia* was divided into three different genera based on morphology: *Laudakia*, *Paralaudakia* and *Stellagama*. Although Pyron et al. (2013) confirmed that *Laudakia* is monophyletic in their study using a super matrix approach, *Stellagama* and *Paralaudakia* are still being used by many herpetologists since 2012. The reptile-database still uses these two names (Uetz et al., 2020). However, Speybroeck et al. (2020) do not follow the split of *Laudakia* and they accepted it as monophyletic. The genera *Stellagama* and *Paralaudakia* continue to be accepted, within the scope of the current checklist, until this controversial situation is completely resolved.

Mediodactylus Szczerbak and Golubev, 1977 was recently represented by two species, *Mediodactylus heterocercus* (Blanford, 1874) and *M. kotschyi* (Steindachner, 1870) in Turkey. According to a recent phylogenetic study (Kotsakiozi et al., 2018), the *M. kotschyi* complex was divided into five distinct species, two of which are distributed in Turkey; *Mediodactylus danilewskii* (Strauch, 1887) and *M. orientalis* (Stepánek, 1937). However, because the nominal subspecies *colchicus* (Nikolsky, 1905), *ponticus* (Baran and Gruber, 1982), *beutleri* (Baran and Gruber, 1981), *karabagi* (Baran and Gruber, 1981) and *steindachneri* (Štěpánek, 1937) are also distributed in Turkey and were not included in this phylogenetic study, further phylogenetic information is needed to assess the taxonomy of the *kotschyi* subspecies (*beutleri* and *karabagi*) living in Turkey. As a consequence, *M. kotschyi* was included in the herpetofaunal list of Turkey.

Asaccus barani (Torki, Ahmadzadeh, Ilgaz, Avcı and Kumlutaş, 2011) was first reported in Turkey from Birecik (Şanlıurfa) by Böhme (1973) as *Asaccus elisae* (Werner, 1895). However, Torki et al. (2011) reassessed the populations of the species and

considered that the species distributed in Turkey was morphologically different from *A. elisae*. Therefore, they applied the name *A. barani* to this form.

Anatololacerta Arnold, Arribas and Carranza, 2007 was represented with three species until recently, based on morphological data (Baran et al., 2012). However, a recent phylogenetic study by Bellati et al. (2015) revealed that *Anatololacerta* was separated into five different clades, represented by four named species: *Anatololacerta anatolica* (Werner, 1900), *A. budaki* (Eiselt and Schmidtler, 1987), *A. danfordi* (Günther, 1876), and *A. pelasgiana* (Mertens, 1959), as well as an undescribed species. In addition, the results of Bellati et al. (2015) suggested that *A. oertzeni* (Werner, 1904) should be considered as a subspecies of *A. anatolica* rather than a species.

Darevskia Arribas, 1997 is the most species-rich genus of lizard in Turkey. There are 16 species in this checklist that comprise the Turkish *Darevskia*. *Darevskia adjarica* (Darevsky and Eiselt, 1980) was known as a subspecies of *D. parvula* (Lantz and Cyrén, 1913) until recently, however, recent morphological and phylogenetic studies (Arribas et al., 2018; Kurnaz et al., 2019) concluded that *D. adjarica* (Darevsky and Eiselt, 1980) is distinct from *D. parvula*. Likewise, *D. bithynica* (Méhely, 1909) was known as a subspecies of *D. rudis* (Bedriaga, 1886) until recent studies, based on morphology and ecology, (Arribas et al., 2013; Kurnaz and Hosseinian-Yousefkhani, 2020) determined that *D. bithynica* (Méhely, 1909) was a distinct and valid species. In contrast, Koç et al. (2017) considered *D. rudis* and *D. bithynica* to be the same species. Kurnaz and Hosseinian Yousefkhani (2020), however, found differences between the ecological niches of the two species and their allopatric occurrence also favors listing *D. bithynica* as a distinct species.

Although *Darevskia mixta* (Méhely, 1909) was recorded by Baran and Atatür (1998) for the first time from Turkey, Gabelaia et al. (2015) reported that previous records from Turkey may have been wrong. The species has only spread in Georgia, and they reported that no *D. mixta* were found in the previous reported localities in Turkey during their field studies 2007–2013 (Gabelaia et al., 2015). However, *D. mixta* was reported from Turkey in the studies of Tuniyev et al. (2014) and Freitas et al. (2019). Also, Freitas et al. (2019) used DNA samples of *D. mixta* from the eastern Black Sea region in Turkey in their study. Based on this data, it was decided to include *D. mixta* in the species list, however, it is necessary to explore the new localities from Turkey and to evaluate its morphology.

According to the literature, members of the genus *Iranolacerta* Arnold, Arribas and Carranza, 2007 were not recorded in Turkey until 2015 (Baran and Atatür, 1998; Sindaco et al., 2000; Baran et al., 2012). *Iranolacerta brandtii* (De Filippi, 1863) was

only known from Iran until recently. The first record of the species from Turkey was given in two independent studies in 2015 (Avcı et al., 2015a; Yıldız and İğci, 2015).

The Anatolian taxon *Lacerta pamphylica* Schmidtler, 1975, has been classified as *L. trilineata* Bedriaga, 1886 (Godinho et al., 2005; Ahmadzadeh et al., 2013; Sagonas et al., 2014). More recently, analyses of SNPs and mitochondrial sequences by Kornilios et al. (2019; 2020) yielded a sister-group relationship between *L. pamphylica* and the eastern Aegean populations of *L. trilineata*. This led to the identification of four species-level units: *L. trilineata*, *L. pamphylica*, *L. citrovittata* Werner, 1938, and *L. diplochondrodes* Wettstein, 1952. *Lacerta diplochondrodes* was earlier known as a subspecies of *L. trilineata* and the same studies that proposed *L. diplochondrodes* as a distinct species revealed that *L. trilineata* sensu stricto do not occur in Turkey (Kornilios et al. 2019; 2020). *Lacerta agilis* was represented by two subspecies (*L. a. brevicaudata* and *L. a. grusinica*) in Turkey. However, the latest phylogenetic study concluded that they are synonymous with *L. a. exigua* (Andres et al., 2014). Although there is a difference at the subspecies level based on morphology, this has not manifested itself at the molecular level. So, all *L. agilis* samples distributed in Turkey are treated as *L. a. exigua* in the scope of this study.

Mesalina microlepis (Angel, 1936) was recorded for the first time from Akçakale, Şanlıurfa, Southern Anatolia as *M. brevirostris* Blanford, 1874 (Kumlutaş et al., 2002a; 2002b). According to a recent phylogenetic study, *Mesalina* populations distributed in Turkey were revealed to be the same species as that distributed to the south of Turkey (Syria, Lebanon and Jordan) (Šmíd et al., 2017). Therefore, Turkish populations of *Mesalina* are treated as *M. microlepis* in the current study.

Timon kurdistanicus (Suchow, 1936) was previously known as a subspecies of *T. princeps* (Blanford, 1874). A recent phylogenomic study by Ahmadzadeh et al. (2012) proposed that *T. kurdistanicus* is a full species based on the high genetic distance from *T. princeps*.

The Family Scincidae in Turkey was represented by ten species, including *Asymblepharus bivittatus* (Ménétries, 1832), *Ablepharus budaki* Göçmen, Kumlutaş and Tosunoğlu, 1996, *A. chernovi* Darevsky, 1953, *A. kitaibelii* (Bibron and Bory St-Vincent, 1833), *Chalcides ocellatus* (Forskål, 1775), *Eumeces schneideri* (Daudin, 1802), *Heremites auratus* (Linnaeus, 1758), *H. septemtaeniatus* (Reuss, 1834), *H. vittatus* (Olivier, 1804), and *Ophiomorus kardesi* Kornilios, Kumlutaş, Lymberakis and Ilgaz, 2018 (Schmidtler, 1997a; Ilgaz et al., 2007; Kumlutaş et al., 2007; Poulakakis et al., 2008; Durmuş et al., 2011; Baran et al., 2012; Karin et al., 2016, Kornilios et al., 2018; Bozkurt and Olgun, 2020).

Recent studies changed the taxonomic position of some scincid species in Turkey. For instance, Bozkurt and Olgun (2020) reported that *Ablepharus bivittatus* has highly divergent genetic and morphological characteristics compared to the others, and it shares similar morphological characteristics with the genus *Asymblepharus*, with which they share an elliptical tympanum, a hidden upper eye opening under 3 or 4 large shields, light and dark longitudinal stripes on the back, and adpressed hind-limbs reaching to knees, and well-developed limbs with five toes. I follow Bozkurt and Olgun (2020) in transferring *Ablepharus bivittatus* to *Asymblepharus*. These authors also proposed that *Ablepharus budaki anatolicus* Schmidtler 1997 is a distinct species in terms of phylogenetic and morphological traits from the nominate form of *A. budaki* (Bozkurt and Olgun, 2020). This taxonomic outcome supports the results of the study of Skourtanioti et al. (2016).

Until recently, the Middle Eastern mabuyine species, *Heremites auratus*, *H. septemtaeniatus* and *H. vittatus*, were considered to belong to the genus *Trachylepis* Fitzinger, 1843. Karin et al. (2016) explained that the Middle Eastern species group formed a phylogenetically distinct clade from the African species group, for which *Heremites* Gray, 1945 was available (Karin et al., 2016). Also, *Ophiomorus kardesi* was known as *O. punctatissimus* (Bibron and Bory de Saint-Vincent, 1833) in Turkey until recently. According to a recent phylogenetic and morphological study, *Ophiomorus* populations distributed in Turkey were revealed to be a distinct species from *O. punctatissimus* (Kornilios et al., 2018).

Considerable differences within the genus *Anguis* Linnaeus, 1758 were reported by means of genetic and morphological analyses (Cabela and Grillitsch, 1989; Gvoždík et al., 2010). This led to the conclusion that there are four different *Anguis* species in Europe (Gvoždík et al., 2010). *Anguis colchica* was known as a subspecies of *A. fragilis* Linnaeus, 1758, until recently. According to recent phylogenetic studies, *A. colchica* (Nordmann, 1840) individuals were revealed as a distinct species from *A. fragilis* (Gvoždík et al., 2010; Gvoždík et al., 2013; Jablonski et al., 2016).

The genus *Blanus* Wagler, 1830 was represented by three subspecies within one species in Turkey until recently. However, a recent phylogenetic and morphological study revealed that the genus was separated into three different species, namely *Blanus alexandri* Sindaco, Kornilios, Sacchi and Lymberakis, 2014, *B. aporus* Werner, 1898, and *B. strauchi* (Bedriaga, 1884) (Sindaco et al., 2014). A recent study based on ecological niche divergence has shown that these three taxa are also separable in terms of niche (Şahin et al., 2021).

The genus *Natrix* Laurenti, 1768 has a broad distribution in Turkey, with three species currently

The genus *Eirenis* Jan, 1863, represented by 14 species in Turkey, has gone through many revisions (Schmidtler, 1993; 1997b; Nagy et al., 2003; Sivan and Werner, 2003). As a result of the revision by Nagy et al. (2003), the species previously known as *Eirenis coronella* (Schlegel, 1837), and distributed in Turkey, has been changed to *E. coronelloides* (Jan, 1862). *Eirenis hakkariensis* Schmidtler and Eiselt, 1991 was known as a subspecies of *E. thospitis* Schmidtler and Lanza, 1990 based on mitochondrial and nuclear genes, until recently (Nagy et al., 2003). However, a recent morphological study revealed that *E. hakkariensis* is a different species from *E. thospitis* based on external morphology, having a higher number of teeth and a different body pattern (Mahlow et al., 2013). Populations of *Eirenis persicus* in Turkey were represented by one taxon until a recent morphological, molecular, and ecological study revealed that some populations represent a different species (Rajabizadeh et al., 2015). The new taxon was described as *E. occidentalis* by Rajabizadeh, Nagy, Adriaens, Avci, Masroor, Schmidtler, Nazarov, Esmaeili and Christiaens, 2015. In addition, the populations of *E. persicus* distributed in Turkey should be referred to *E. occidentalis* (Rajabizadeh et al., 2015).

Elaphe was represented by a single species, *Elaphe sauromates* (Pallas, 1811) in Turkey until 2004. The first record of the second species, *Elaphe dione* (Pallas, 1773), was given by Garzoni and Geniez (2004) based on three specimens from north-eastern Turkey, although there have been no more recent records. The third species, *Elaphe urartica* Jablonski, Kukushkin, Avci, Bunyatova, Ilgaz, Tuniyev, and Jandzik, 2019, named for the ancient Kingdom of Urartu, was newly described from among eastern populations of *E. sauromates* and is discriminated based on molecular phylogenetic and morphological data (Jablonski et al., 2019).

The genus *Rhynchocalamus* Günther, 1864, until recently comprised three species known from Turkey. One of them, *Rhynchocalamus barani*, shows different morphological features from the other two (Olgun et al., 2007). Osteological and phylogenetic results of Avci et al. (2015b) revealed that *R. barani* should be placed in its own genus as *Muhtarophis barani* (Olgun, Avci, Ilgaz, Üzümlü and Yılmaz, 2007). However, results of the study of Rajabizadeh et al. (2020) strongly support a sister-group relationship of *Muhtarophis* Avci, Ilgaz, Rajabizadeh, Yılmaz, Üzümlü, Adriaens, Kumlutaş and Olgun, 2015 and *Scaphiophis*. According to Rajabizadeh et al. (2020), they form a clade that is the sister group to all the above genera of the Western Palearctic and South Asian colubrids. Since this situation has not yet been resolved, I included *barani* in the genus *Muhtarophis* in this study.

recorded. One of these, *Natrix megalcephala* (Orlov and Tuniyev, 1987), based on morphological data, has

been considered as a full species (Orlov and Tuniyev, 1987). However, according to a recent phylogenetic study, *N. megalcephala* is a synonym of *N. natrix* (Linnaeus, 1758) (Kindler et al., 2013) and it has not been included in the species list for Turkey.

Vipers have an enormous diversity in Turkey, represented by *Daboia* Gray, 1842, *Macrovipera* Reuss, 1927, *Montivipera* Nilson, Tuniyev, Andren, Orlov, Joger, and Herrmann, 1999, and *Vipera* Laurenti, 1768. The subgenus *Pelias* Merrem, 1820 was nested within *Vipera*, however this has been used as a full genus in some studies (Avcı et al., 2010; Tuniyev et al., 2012; 2018). *Daboia* has one species distributed in Turkey, *Daboia palaestinae* (Werner, 1938) first recorded from Hatay Province, its only locality in Turkey (Göçmen et al., 2018). Also, *Macrovipera* has one species, *M. lebetinus* (Linnaeus, 1758), represented within Turkey. *Montivipera* is a complex. Although it was represented by five species, there is also the possibility of more species being recognized in the near future. According to the study of Stümpel et al. (2016), *Montivipera xanthina* (Gray, 1849) has four lineages at the species level, but they did not clarify the morphology of these lineages. In addition, same authors reported that *Montivipera albizona* (Nilson, Andren and Flärdh, 1990) was phylogenetically within *Montivipera bulgardaghica* (Nilson and Andren, 1985) (Stümpel and Joger, 2009; Stümpel et al., 2016; Freitas et al., 2020). In this study, *M. albizona* is considered as a full species. Because this taxon has been evaluated only phylogenetically and it is also important to know about reproductive isolation and the ecological niches of the species, I have adopted a conservative approach in this instance.

The subgenus *Pelias* Merrem, 1820 is represented by eight species in Turkey (Baran et al., 2012; Tuniyev et al., 2012, 2018; Freitas et al., 2020). Some of these species were described recently. *Pelias olguni* (Tuniyev, Avcı, Tuniyev, Agasian and Agasian, 2012) was first described as *Pelias darevskii* from Ardahan (Avcı et al., 2010), and *P. sakoi* (Tuniyev, Avcı, Ilgaz, Olgun, Petrova, Bodrov, Geniez and Teynić, 2019) was first described as *P. erivanensis* (Reuss, 1933) from Erzincan (Baran et al., 2005). Later, based on comprehensive morphological studies, the taxa were described as two new species (Tuniyev et al., 2012; Tuniyev et al., 2018). Tuniyev et al. (2018) reported a low genetic distance between *P. darevskii* (Vedmederja, Orlov and Tuniyev, 1986) and *P. olguni*. However, these researchers said that this was not

necessarily evidence of conspecificity. According to a recent study (Freitas et al., 2020), *Pelias* is the most diversified viper group in the phylogeny, with multiple described species. The authors reported that *P. barani* (Böhme and Joger, 1983) is nested within *P. berus* (Linnaeus) and that *P. olguni* is nested within *P. darevskii* in terms of their phylogenetics. However, for some taxa (*P. barani* and *P. olguni*), there is only the Cytb gene in GenBank. Sometimes this gene region alone is insufficient to make a taxonomic decision. For example, both *P. barani* and *P. olguni* exhibit distinctive morphologies. Therefore, morphology-DNA conflict is seen in both taxa.

In order to clarify this situation, more DNA sequences, including both mitochondrial and nuclear genomes are needed. Until this complicated situation is rectified, *P. barani* and *P. olguni* will be treated at the species level. Another reason why *P. barani* is treated at the species level is that *P. berus* shows a very different geography; it is only found in Anatolia and therefore allopatric with respect to all other *P. berus* populations. However, future studies may resolve the situation more clearly. The same situation is valid for the *ammodytes-transcaucasiana* complex reported by Freitas et al. (2020).

Vipera transcaucasiana Boulenger, 1913 was known as a full species until 2008 when Ursenbacher et al. (2008) reported that, based on their phylogeny, it did not differ from *V. ammodytes* (Linnaeus, 1758). However, the study required more samples from Turkey, and pending more comprehensive results, two separate species are recognized within the scope of this study.

The Blindsnakes are represented by three different species in Turkey. The genus previously known as *Typhlops* Oppel, 1811 displays high diversity. Hedges et al. (2014) described a new genus, *Xerotyphlops* Hedges, Marion, Lipp, Marin, and Vidal, 2014, with the species *X. vermicularis* as its Turkish representative. The type specimen of *Myriopholis macroryncha* housed in the Milan museum was lost during World War II (Sindaco et al., 2013). The position of this taxon in Africa is still uncertain because almost all of the examples that were once included in this taxon have been attributed to other taxa. So, the original descriptions and drawings of the type examples are included in the species *Leptotyphlops cairi* (Trape, 2002). Therefore, Broadley and Wallach (2007) suggested that more studies are needed to determine the taxonomic status of Middle Eastern populations. However, within the scope of this study, this taxon is treated as *M. macroryncha*.

Species List and Conservation Status**Class Amphibia Linnaeus, 1758****Order Anura Duméril, 1806****Family Bombinatoridae Gray, 1825****Genus *Bombina* Oken, 1816*****Bombina bombina* (Linnaeus, 1761)**

Turkish Subspecies: *B. b. bombina* (Linnaeus, 1761); *B. b. arifiyensis* (Özeti and Yılmaz, 1987).

Conservation status IUCN: LC.

Chorotype: European.

***Bombina variegata* (Linnaeus, 1758)**

Turkish Subspecies: *B. v. scabra* (Müller, 1940).

Conservation status IUCN: LC.

Chorotype: European.

Family: Bufonidae Gray, 1825**Genus *Bufo* Garsault, 1764*****Bufo bufo* (Linnaeus, 1758)**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: LC.

Chorotype: European.

***Bufo verrucosissimus* (Pallas, 1814)**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: NT.

Chorotype: Kolkhido-Caucasian endemic.

Genus *Bufo* Rafinesque, 1815***Bufo siibundus* Pallas, 1771**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: Not listed.

Chorotype: Turano-European-Mediterranean.

***Bufo viridis* (Laurenti, 1768)**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: LC.

Chorotype: European.

Family Hylidae Rafinesque, 1815**Genus *Hyla* Laurenti, 1768*****Hyla orientalis* (Bedriaga, 1890)**

Turkish Subspecies: *H. o. schelkownikowi* (Chernov, 1926).

Conservation status IUCN: Not listed.

Chorotype: Europeo-Mediterranean.

***Hyla savignyi* (Audouin, 1827)**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: LC.

Chorotype: SW-Asiatic.

Family Pelobatidae Bonaparte, 1850**Genus *Pelobates* Wagler, 1830*****Pelobates syriacus* (Boettger, 1889)**

Turkish Subspecies: *P. s. boettgeri* (Mertens, 1923).

Conservation status IUCN: LC.

Chorotype: Turano-Mediterranean.

Family Pelodytidae Bonaparte, 1850**Genus *Pelodytes* Bonaparte, 1838*****Pelodytes caucasicus* (Boulenger, 1896)**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: NT.

Chorotype: Ponto-Caucasian endemic.

Family Ranidae Batsch, 1796**Genus *Pelophylax* Fitzinger, 1843*****Pelophylax bedriagae* (Camerano, 1882)**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: LC.

Chorotype: Turano-European-Mediterranean.

***Pelophylax caralitanus* (Arikan, 1988)**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: NT.

Distribution: Endemic.

Chorotype: Anatolian endemic.

***Pelophylax ridibundus* (Pallas, 1771)**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: LC.

Chorotype: Turano-European-Mediterranean.

Genus *Rana* Linnaeus, 1758***Rana dalmatina* (Fitzinger, 1838)**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: LC.

Chorotype: Europeo-Siberian.

***Rana macrocnemis* (Boulenger, 1885)**

Turkish Subspecies: *R. m. macrocnemis* Boulenger, 1885; *R. m. camerani* Boulenger, 1886; *R. m. holtzi* Werner, 1898.

Conservation status IUCN: LC.

Chorotype: SW-Asiatic.

***Rana tavasensis* Baran and Atatür, 1986**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: EN.

Distribution: Endemic.

Chorotype: Anatolian endemic.

Order Urodela Duméril, 1806**Family Salamandridae Goldfuss, 1820****Genus *Lissotriton* Bell, 1839*****Lissotriton kosswigi* Freytag, 1955**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: Not listed.

Distribution: Endemic.

Chorotype: Anatolian endemic.

***Lissotriton lantzi* Wolterstorff, 1914**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: Not listed.

Chorotype: Caucasian.

***Lissotriton schmidtleri* Raxworthy, 1988**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: Not listed.

Chorotype: W-Asiatic.

Genus *Neurergus* Cope, 1862***Neurergus barani* Öz, 1994**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: Not listed.

Distribution: Endemic.

Chorotype: Anatolian endemic.

***Neuregerus crocatus* (Cope, 1862)**

Turkish Subspecies: Monotypic subspecies.
 Conservation status IUCN: VU.
 Chorotype: SW-Asiatic.

***Neuregerus strauchii* (Steindachner, 1887)**

Turkish Subspecies: *N. s. strauchii* (Steindachner, 1887); *N. s. munzurensis* Olgun, Avcı, Bozkurt, Üzümlü, Olgun, and Ilgaz, 2016.
 Conservation status IUCN: VU.
 Distribution: Endemic.
 Chorotype: Anatolian endemic.

Genus *Ommatotriton* Gray, 1850***Ommatotriton nesterovi* Litvinchuk, Zuiderwijk, Borkin, and Rosanov, 2005**

Turkish Subspecies: Monotypic subspecies.
 Conservation status IUCN: Not listed.
 Distribution: Endemic.
 Chorotype: Anatolian endemic.

***Ommatotriton ophryticus* (Berthold, 1846)**

Turkish Subspecies: Monotypic subspecies.
 Conservation status IUCN: NT.
 Chorotype: Turano-European.

***Ommatotriton vittatus* (Gray, 1835)**

Turkish Subspecies: *O. v. vittatus* (Gray, 1835); *O. v. cilicensis* (Wolterstorff, 1906).
 Conservation status IUCN: LC.
 Chorotype: Turano-Mediterranean (Turano-E Mediterranean).

Genus *Triturus* Rafinesque, 1815***Triturus anatolicus* Wielstra and Arntzen, 2016**

Turkish Subspecies: Monotypic subspecies.
 Conservation status IUCN: Not listed.
 Distribution: Endemic.
 Chorotype: Anatolian endemic.

***Triturus ivanbureschi* Arntzen and Wielstra in Wielstra, Litvinchuk, Naumov, Tzankov, and Arntzen, 2013**

Turkish Subspecies: Monotypic subspecies.
 Conservation status IUCN: Not listed.
 Chorotype: Balkano-Anatolian.

Genus *Lyciasalamandra* Veith and Steinfartz, 2004***Lyciasalamandra antalyana* (Başoğlu and Baran, 1976)**

Turkish Subspecies: *L. a. antalyana* (Başoğlu and Baran, 1976); *L. a. gocmeni* Akman and Godmann, 2014.
 Conservation status IUCN: EN.
 Distribution: Endemic.
 Chorotype: Anatolian endemic.

***Lyciasalamandra atifi* (Başoğlu, 1967)**

Turkish Subspecies: *L. a. atifi* (Başoğlu, 1967); *L. a. bayrami* Yıldız and Akman, 2015; *L. a. godmanni* Oğuz, Göçmen, and Yalçinkaya, 2016; *L. a. oezi* Tok, Afsar, and Yakın, 2016; *L. a. veithi* Oğuz, Göçmen, and Yalçinkaya, 2016; *L. a. kunti* Oğuz, Göçmen, and Yalçinkaya, 2016.
 Conservation status IUCN: EN.
 Distribution: Endemic.
 Chorotype: Anatolian endemic.

***Lyciasalamandra billae* (Franzen and Klewen, 1987)**

Turkish Subspecies: *L. b. billae* (Franzen and Klewen, 1987); *L. b. arikani* Göçmen and Akman, 2012; *L. b. eikeae* Godmann, Kariş, and Göçmen, 2016; *L. b. irfani* Göçmen, Arıkan, and Yalçinkaya, 2011; *L. b. yehudahi* Göçmen and Akman, 2012.
 Conservation status IUCN: CR.
 Distribution: Endemic.
 Chorotype: Anatolian endemic.

***Lyciasalamandra fazilae* (Başoğlu and Atatür, 1974)**

Turkish Subspecies: *L. f. fazilae* (Başoğlu and Atatür, 1974); *L. f. ulfetae* Göçmen, Ehl, Kariş, Thiesmeier, and Kordges, 2018.
 Conservation status IUCN: EN.
 Distribution: Endemic.
 Chorotype: Anatolian endemic.

***Lyciasalamandra flavimembris* (Mutz and Steinfartz, 1995)**

Turkish Subspecies: *L. f. flavimembris* (Mutz and Steinfartz, 1995); *L. f. ilgazi* Üzümlü, Avcı, Bozkurt, and Olgun, 2015.
 Conservation status IUCN: EN.
 Distribution: Endemic.
 Chorotype: Anatolian endemic.

***Lyciasalamandra luschani* (Steindachner, 1891)**

Turkish Subspecies: *L. l. luschani* (Steindachner, 1891); *L. l. basoglui* (Baran and Atatür, 1980); *L. l. finikensis* (Başoğlu and Atatür, 1976).
 Conservation status IUCN: VU.
 Chorotype: NE-Mediterranean.

Genus *Mertensiella* Wolterstorff, 1925***Mertensiella caucasica* (Waga, 1876)**

Turkish Subspecies: Nominotypical subspecies.
 Conservation status IUCN: VU.
 Chorotype: Ponto-Caucasian endemic.

Genus *Salamandra* Garsault, 1764***Salamandra infraimmaculata* (Martens, 1885)**

Turkish Subspecies: *S. i. infraimmaculata* (Martens, 1885); *S. i. semenovi* (Nesterov, 1916); *S. i. orientalis* (Wolterstorff, 1925).
 Conservation status IUCN: NT.
 Chorotype: SW-Asiatic.

Class Reptilia Laurenti, 1768**Order Testudines Batsch, 1788****Family Emydidae Rafinesque, 1815****Genus *Emys* Duméril, 1805*****Emys orbicularis* (Linnaeus, 1758)**

Turkish Subspecies: *E. o. orbicularis* (Linnaeus, 1758); *E. o. eiselti* (Fritz, Baran, Budak, and Amthauer 1998).
 Conservation status IUCN: NT.
 Chorotype: Turano-European, Mediterranean.

Genus *Trachemys* Agassiz, 1857***Trachemys scripta* (Thunberg in Schoepff, 1792)**

Turkish Subspecies: *T. s. elegans* (Wied, 1838).
 Conservation status IUCN: LC.
 Distribution: Introduced.

Family Testudinidae Batsch 1788**Genus *Testudo* Linnaeus, 1758*****Testudo graeca* (Linnaeus, 1758)**

Turkish Subspecies: *T. g. armeniaca* (Chkhikvadze and Bakradse, 1991); *T. g. buxtoni* (Boulenger, 1921); *T. g. iberica* (Pallas, 1814); *T. g. terrestris* (Forskål, 1775).

Conservation status IUCN: VU.

Chorotype: Turano-Mediterranean (Turano-E Mediterranean).

***Testudo hermanni* (Gmelin, 1789)**

Turkish Subspecies: *T. h. boettgeri* (Mojsisovics, 1889).

Conservation status IUCN: NT.

Chorotype: Southern-European.

Family Geoemydidae Theobald, 1868**Genus *Mauremys* Gray, 1869*****Mauremys caspica* (Gmelin, 1774)**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: Not listed.

Chorotype: Turano-Mediterranean.

***Mauremys rivulata* (Valenciennes, 1833)**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: LC.

Chorotype: Turano-Mediterranean (Turano-E Mediterranean).

Family Trionychidae Gray 1825**Genus *Rafetus* Gray, 1864*****Rafetus euphraticus* (Daudin, 1801)**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: EN.

Chorotype: SW-Asiatic (Mesopotamian).

Genus *Trionyx* Geoffroy Saint Hilaire, 1809***Trionyx triunguis* (Forskål, 1775)**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: VU.

Chorotype: Afrotropico-Mediterranean.

Family Cheloniidae Opper, 1811**Genus *Caretta* Rafinesque, 1814*****Caretta caretta* (Linnaeus, 1758)**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: VU.

Chorotype: Cosmopolitan.

Presence status: Nesting.

Genus *Chelonia* Brongniart, 1800***Chelonia mydas* (Linnaeus, 1758)**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: EN.

Chorotype: Cosmopolitan.

Presence status: Nesting.

Family Dermochelyidae Fitzinger 1843**Genus *Dermochelys* Blainville 1816*****Dermochelys coriacea* (Vandelli, 1761)**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: VU.

Chorotype: Cosmopolitan.

Presence status: Visitor.

Order Squamata Opper, 1811**Suborder Sauria Macartney, 1802****Family Agamidae Gray, 1827****Genus *Paralaudakia* Baig, Wagner, Anajeva and Böhme, 2012*****Paralaudakia caucasica* (Eichwald, 1831)**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: LC.

Chorotype: Turanian.

Genus *Phrynocephalus* Kaup, 1825***Phrynocephalus horvathi* Mähely, 1894**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: VU.

Chorotype: SW-Asiatic.

Genus *Stellagama* Baig, Wagner, Anajeva and Böhme, 2012***Stellagama stellio* (Linnaeus, 1758)**

Turkish Subspecies: *S. s. stellio* (Linnaeus, 1758); *S. s. daani* (Beutler and Frör, 1980).

Conservation status IUCN: LC.

Chorotype: E-Mediterranean.

Genus *Trapelus* Cuvier, 1817***Trapelus ruderatus* (Olivier, 1804)**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: LC.

Chorotype: SW-Asiatic.

Family Chamaeleonidae Rafinesque, 1815**Genus *Chamaeleo* Laurenti, 1768*****Chamaeleo chamaeleon* (Linnaeus, 1758)**

Turkish Subspecies: *C. c. recticrista* (Boettger 1880).

Conservation status IUCN: LC.

Chorotype: Mediterranean.

Family Gekkonidae Gray, 1825**Genus *Cyrtopodion* Fitzinger, 1843*****Cyrtopodion scabrum* (Heyden, 1827)**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: LC.

Chorotype: SW-Asiatic.

Genus *Hemidactylus* Oken, 1817***Hemidactylus turcicus* (Linnaeus, 1758)**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: LC.

Chorotype: Mediterranean.

Genus *Mediodactylus* Szczerbak and Golubev, 1977***Mediodactylus danilewskii* Strauch, 1887**

Turkish Subspecies: *M. d. danilewskii* (Strauch, 1887); *M. d. colchicus* (Nikolsky, 1902); *M. d. ponticus* (Baran and Gruber, 1982).

Conservation status IUCN: Not listed.

Chorotype: W-Asiatic.

***Mediodactylus heterocercus* (Blanford, 1874)**

Turkish Subspecies: *M. h. mardinensis* (Mertens, 1924).

Conservation status IUCN: LC.

Chorotype: N-Mesopotamian endemic.

***Mediodactylus kotschy* (Steindachner, 1870)**

Turkish Subspecies: *M. k. beutleri* (Baran and Gruber, 1981); *M. k. karabagi* (Baran and Gruber, 1981).

Conservation status IUCN: LC.

Chorotype: E-Mediterranean.

***Mediodactylus orientalis* (Stepánek, 1937)**

Turkish Subspecies: *M. o. bolkaensis* (Rösler, 1994); *M. o. cilicensis* (Baran and Gruber, 1982); *M. o. lycaonicus* (Mertens, 1952); *M. o. syriacus* (Stepánek, 1937).

Conservation status IUCN: Not listed.

Chorotype: E-Mediterranean.

Genus *Stenodactylus* Fitzinger, 1826***Stenodactylus grandiceps* (Haas, 1952)**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: LC.

Chorotype: SW-Asiatic.

Family Eublepharidae Boulenger, 1883**Genus *Eublepharis* Gray, 1827*****Eublepharis angramainyu* (Anderson and Leviton, 1966)**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: DD.

Chorotype: SW-Asiatic (Mesopotamian).

Family Phyllodactylidae Gamble, Bauer, Greenbaum and Jackman, 2008**Genus *Asaccus* Dixon and Anderson, 1973*****Asaccus barami* Ahmadzadeh, Avci, Torki, Ilgaz and Kumlutas, 2011**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: Not listed.

Distribution: Endemic.

Chorotype: Anatolian endemic.

Family Lacertidae Opper, 1811**Genus *Acanthodactylus* Wiegmann, 1834*****Acanthodactylus boskianus* (Daudin, 1802)**

Turkish Subspecies: *A. b. euphraticus* (Boulenger, 1919).

Conservation status IUCN: Not listed.

Chorotype: Saharo-Sahelo-Arabian.

***Acanthodactylus harranensis* Baran, Kumlutaş, Lanza, Sindaco, Ilgaz, Avci and Crucitti, 2005**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: CR.

Distribution: Endemic.

Chorotype: Anatolian endemic.

***Acanthodactylus schreiberi* Boulenger, 1878**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: EN.

Chorotype: E-Mediterranean.

Genus *Anatololacerta* Arnold, Arribas and Carranza, 2007***Anatololacerta anatolica* (Werner, 1900)**

Turkish Subspecies: Nominotypical subspecies.

Conservation status IUCN: LC.

Chorotype: W-Anatolian.

***Anatololacerta budaki* Eiselt and Schmidtler, 1986**

Turkish Subspecies: *A. b. budaki* (Eiselt and Schmidtler, 1986); *A. b. finikensis* (Eiselt and Schmidtler, 1986).

Conservation status IUCN: Not listed.

Chorotype: E-Mediterranean.

***Anatololacerta danfordi* (Günther, 1876)**

Turkish Subspecies: *A. d. danfordi* (Günther, 1876); *A. d. bileki* (Eiselt and Schmidtler, 1986).

Conservation status IUCN: LC.

Distribution: Endemic.

Chorotype: Anatolian endemic.

***Anatololacerta pelasgiana* Mertens, 1959**

Turkish Subspecies: Nominotypical subspecies.

Conservation status IUCN: Not listed.

Chorotype: E-Mediterranean.

Genus *Apathya* Méhely, 1907***Apathya cappadocica* (Werner, 1902)**

Turkish Subspecies: *A. c. cappadocica* (Werner, 1902); *A. c. muhtari* (Eiselt, 1979) synonym *A. c. schmidtlerorum* (Eiselt, 1979); *A. c. urmiana* (Lantz and Suchow, 1934); *A. c. wolteri* (Bird, 1936).

Conservation status IUCN: LC.

Chorotype: SW-Asiatic.

Genus *Darevskia* Arribas, 1997**Bisexual *Darevskia* species*****Darevskia adjarica* Darevsky and Eiselt, 1980**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: Not listed.

Chorotype: Kolkhidian endemic.

***Darevskia bithynica* Méhely, 1909**

Turkish Subspecies: *D. b. bithynica* Méhely, 1909; *D. b. tristis* Lantz and Cyrén, 1936.

Conservation status IUCN: Not listed.

Distribution: Endemic.

Chorotype: Anatolian endemic.

***Darevskia clarkorum* (Darevsky and Vedmederja, 1977)**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: EN.

Chorotype: Kolkhidian endemic.

***Darevskia derjugini* (Nikolsky, 1898)**

Turkish Subspecies: Nominotypical subspecies.

Conservation status IUCN: NT.

Chorotype: Kolkhido-Caucasian endemic.

***Darevskia dryada* (Darevsky and Tuniyev, 1997)**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: CR.

Chorotype: Kolkhidian endemic.

***Darevskia mixta* (Méhely, 1909)**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: NT.

Chorotype: Kolkhidian endemic.

***Darevskia parvula* (Lantz and Cyrén, 1913)**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: LC.

Distribution: Endemic.

Chorotype: Anatolian endemic.

***Darevskia pontica* (Lantz and Cyrén, 1918)**

Turkish Subspecies: Nominotypical subspecies.
 Conservation status IUCN: Not listed.
 Chorotype: Turano-Mediterranean.

***Darevskia raddei* (Boettger, 1892)**

Turkish Subspecies: *D. r. nairensis* (Darevsky, 1967);
D. r. vanensis (Eiselt, Schmidtler and Darevsky, 1993).
 Conservation status IUCN: LC.
 Chorotype: SW-Asiatic.

***Darevskia rudis* (Bedriaga, 1886)**

Turkish Subspecies: *D. r. rudis* (Bedriaga, 1886); *D. r. bischoffi* (Böhme and Budak, 1977); *D. r. bolcardaghica* Arribas Ilgaz, Kumlutaş, Durmuş, Avcı, and Üzümlü, 2013; *D. r. macromaculata* (Darevsky, 1967); *D. r. mirabilis* Arribas Ilgaz, Kumlutaş, Durmuş, Avcı, and Üzümlü, 2013; *D. r. obscura* (Lantz and Cyrén, 1936).
 Conservation status IUCN: LC.
 Chorotype: Ponto-Caucasian endemic.

***Darevskia valentini* (Boettger, 1892)**

Turkish Subspecies: *D. v. valentini* (Boettger, 1892); *D. v. lantzicyreni* (Darevsky and Eiselt, 1967); *D. v. spitzenbergerae* (Eiselt, Darevsky, and Schmidtler, 1992).
 Conservation status IUCN: LC.
 Chorotype: SW-Asiatic.

Unisexual *Darevskia* species***Darevskia armeniaca* (Méhely, 1909)**

Turkish Subspecies: Monotypic subspecies.
 Conservation status IUCN: LC.
 Chorotype: Armeno-E-Anatolian endemic.

***Darevskia bendimahiensis* (Schmidtler, Eiselt and Darevsky, 1994)**

Turkish Subspecies: Monotypic subspecies.
 Conservation status IUCN: EN.
 Distribution: Endemic.
 Chorotype: Anatolian endemic.

***Darevskia sapphirina* (Schmidtler, Eiselt and Darevsky, 1994)**

Turkish Subspecies: Monotypic subspecies.
 Conservation status IUCN: LC.
 Distribution: Endemic.
 Chorotype: Anatolian endemic.

***Darevskia unisexualis* (Darevsky, 1966)**

Turkish Subspecies: Monotypic subspecies.
 Conservation status IUCN: NT.
 Chorotype: Armeno-E-Anatolian endemic.

***Darevskia uzzelli* (Darevsky and Danielyan, 1977)**

Turkish Subspecies: Monotypic subspecies.
 Conservation status IUCN: EN.
 Distribution: Endemic.
 Chorotype: Anatolian endemic.

Genus *Eremias* Fitzinger, 1834***Eremias pleskei* (Nikolsky, 1905)**

Turkish Subspecies: Monotypic subspecies.
 Conservation status IUCN: CR.
 Chorotype: Armeno-Caucasian endemic.

***Eremias trauchi* (Kessler, 1878)**

Turkish Subspecies: Monotypic subspecies.
 Conservation status IUCN: LC.
 Chorotype: SW-Asiatic (Irano-Caucasian).

***Eremias suphani* (Başoğlu and Hellmich, 1968)**

Turkish Subspecies: Monotypic subspecies.
 Conservation status IUCN: LC.
 Chorotype: Irano-Anatolian endemic.

Genus *Iranolacerta* Arnold, Arribas and Carranza, 2007***Iranolacerta brandtii* De Filippi, 1863**

Turkish Subspecies: Nominotypical subspecies.
 Conservation status IUCN: DD.
 Chorotype: SW-Asiatic (Irano-E-Anatolian).

Genus *Lacerta* Linnaeus, 1758***Lacerta agilis* (Linnaeus, 1758)**

Turkish Subspecies: *L. a. exigua* Eichwald, 1831.
 Conservation status IUCN: LC.
 Chorotype: Centralasiatic-European.

***Lacerta diplochondrodes* Wettstein, 1952**

Turkish Subspecies: *L. d. diplochondrodes* Wettstein, 1952; *L. d. cariensis* Peters, 1964; *L. d. dobrogica* Fuhn and Mertens, 1959; *L. d. galatiensis* Peters, 1964.
 Conservation status IUCN: Not listed.
 Chorotype: E-Mediterranean.

***Lacerta media* (Lantz and Cyrén, 1920)**

Turkish Subspecies: *L. m. media* (Lantz and Cyrén, 1920); *L. m. ciliciensis* (Schmidtler, 1975); *L. m. isaurica* (Schmidtler, 1975); *L. m. wolterstorffi* (Mertens, 1922).
 Conservation status IUCN: LC.
 Chorotype: SW-Asiatic.

***Lacerta pamphylica* (Schmidtler, 1975)**

Turkish Subspecies: Monotypic subspecies.
 Conservation status IUCN: LC.
 Distribution: Endemic.
 Chorotype: Anatolian endemic.

***Lacerta strigata* (Eichwald, 1831)**

Turkish Subspecies: Monotypic subspecies.
 Conservation status IUCN: LC.
 Chorotype: SW-Asiatic.

***Lacerta viridis* (Laurenti, 1768)**

Turkish Subspecies: *L. v. meridionalis* Cyrén, 1933.
 Conservation status IUCN: LC.
 Chorotype: E-European.

Genus *Mesalina* Gray, 1838***Mesalina microlepis* Angel, 1936**

Turkish Subspecies: Monotypic subspecies.
 Conservation status IUCN: Not listed.
 Chorotype: E-Mediterranean.

Genus *Ophisops* Ménétriés, 1832***Ophisops elegans* Ménétriés, 1832**

Turkish Subspecies: *O. e. elegans* (Ménétriés, 1832); *O. e. basoglui* (Baran and Budak, 1978); *O. e. budakibarani* Tok, Afsar, Yakın Ayaz, and Çiçek, 2017; *O. e. centralanatoliae* (Bodenheimer, 1944); *O.*

e. ehrenbergii (Wiegmann, 1835); *O. e. macrodactylus* (Berthold, 1840).

Conservation status IUCN: LC.

Chorotype: E-Mediterranean.

Genus *Parvilacerta* Arnold, Arribas and Carranza, 2007
***Parvilacerta parva* (Boulenger, 1887)**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: LC.

Chorotype: Armeno-Anatolian endemic.

Genus *Phoenicolacerta* Arnold, Arribas and Carranza, 2007

***Phoenicolacerta cyanisparsa* (Schmidtler and Bischoff, 1999)**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: LC.

Chorotype: E-Mediterranean.

***Phoenicolacerta laevis* (Gray, 1838)**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: LC.

Chorotype: E-Mediterranean.

Genus *Podarcis* Wagler, 1830

***Podarcis muralis* (Laurenti, 1768)**

Turkish Subspecies: *P. m. muralis* (Laurenti, 1768); *P. m. kefkenensis* (Baran and Gruber, 1981).

Conservation status IUCN: LC.

Chorotype: S-European.

***Podarcis siculus* (Rafinesque-Schmaltz, 1810)**

Turkish Subspecies: Nominotypical subspecies.

Conservation status IUCN: LC.

Distribution: Introduced.

Chorotype: Mediterranean (Italian and Dalmatian endemic).

***Podarcis tauricus* (Pallas, 1814)**

Turkish Subspecies: Nominotypical subspecies.

Conservation status IUCN: LC.

Chorotype: Mediterranean (Balkan endemic).

Genus *Timon* Tschudi, 1836

***Timon kurdistanicus* Suchow, 1936**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: Not listed.

Chorotype: SW-Asiatic.

Family Scincidae Gray, 1825

Genus *Ablepharus* Lichtenstein, 1823

***Ablepharus anatolicus* Schmidtler, 1997**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: Not listed.

Chorotype: E-Mediterranean.

***Ablepharus budaki* Göçmen, Kumlutaş and Tosunoğlu, 1996**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: LC.

Chorotype: E-Mediterranean.

***Ablepharus chernovi* Darevsky, 1953**

Turkish Subspecies: *A. c. chernovi* (Darevsky, 1953);

A. c. eiselti (Schmidtler, 1997); *A. c. isauriensis*

(Schmidtler, 1997); *A. c. resslii* (Schmidtler, 1997).

Conservation status IUCN: LC.

Chorotype: Armeno-Anatolian Endemic.

***Ablepharus kitaibelii* (Bibron and Bory de St-Vincent, 1833)**

Turkish Subspecies: *A. k. kitaibelli* (Bibron and Bory

de St-Vincent, 1833); *A. k. stepaneki* (Fuhn, 1970).

Conservation status IUCN: Not listed.

Chorotype: E-Mediterranean.

Genus *Asymblepharus* Eremchenko and Szczerbak, 1980

***Asymblepharus bivittatus* Ménétries, 1832**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: LC.

Chorotype: SW-Asiatic (Irano-Caucasian).

Genus *Chalcides* Laurenti, 1768

***Chalcides ocellatus* (Forskål, 1775)**

Turkish Subspecies: Nominotypical subspecies.

Conservation status IUCN: LC.

Chorotype: Mediterraneo-Sindian.

Genus *Eumeces* Wiegmann, 1834

***Eumeces schneiderii* (Daudin, 1802)**

Turkish Subspecies: *E. s. barani* (Kumlutas, Arıkan,

Ilgaz, and Kaska 2007); *E. s. pavimentatus* (Geoffroy

De St. Hilaire, 1827); *E. s. princeps* (Eichwald, 1839).

Conservation status IUCN: LC.

Chorotype: SW-Asiatic.

Genus *Heremites* Gray, 1845

***Heremites auratus* (Linnaeus, 1758)**

Turkish Subspecies: Nominotypical subspecies.

Conservation status IUCN: LC.

Chorotype: SW-Asiatic.

***Heremites septemtaeniatus* (Reuss, 1834)**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: LC.

Chorotype: SW-Asiatic.

***Heremites vittatus* (Olivier, 1804)**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: LC.

Chorotype: Mediterranean.

Genus *Ophiomorus* Duméril and Bibron, 1839

***Ophiomorus kardesi* Kornilios, Kumlutaş, Lymberakis and Ilgaz, 2018**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: Not listed.

Chorotype: E-Mediterranean.

Family Anguidae Gray, 1825

Genus *Anguis* Linnaeus, 1758

***Anguis colchica* Nordmann, 1840**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: Not listed.

Chorotype: European.

Genus *Pseudopus* Merrem, 1820

***Pseudopus apodus* (Pallas, 1775)**

Turkish Subspecies: *P. a. apodus* (Pallas, 1775); *P. a.*

thracius (Obst, 1978).

Conservation status IUCN: LC.

Chorotype: Turano-Mediterranean.

Family Varanidae Merrem, 1820**Genus *Varanus* Shaw, 1790*****Varanus griseus* (Daudin, 1803)**

Turkish Subspecies: Nominotypical subspecies.

Conservation status IUCN: Not listed.

Chorotype: Saharo-Turano-Sindian.

Suborder Amphisbaenia Gray, 1844**Family Blanidae Kearney, 2003****Genus *Blanus* Wagler, 1830*****Blanus alexandri* Sindaco, Kornilios, Sacchi and Lymberakis, 2014**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: Not listed.

Chorotype: E-Mediterranean.

***Blanus aporus* Werner, 1898**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: Not listed.

Endemism status: Endemic.

Chorotype: Anatolian endemic.

***Blanus strauchi* (Bedriaga, 1884)**Turkish Subspecies: *B. s. strauchi* (Bedriaga, 1884);*B. s. bedriagae* (Boulenger, 1884).

Conservation status IUCN: LC.

Chorotype: E-Mediterranean.

Suborder Serpentes Linnaeus, 1758 (Ophidia Latreille, 1804)**Family Erycidae Bonaparte, 1840****Genus *Eryx* Daudin, 1803*****Eryx jaculus* (Linnaeus, 1758)**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: LC.

Chorotype: Mediterranean (Anatolo-Balkano-N-African).

Family Colubridae Opperl, 1811**Genus *Coronella* Laurenti, 1768*****Coronella austriaca* (Laurenti, 1768)**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: LC.

Chorotype: European.

Genus *Dolichophis* Gistel, 1868***Dolichophis caspius* (Gmelin, 1789)**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: LC.

Chorotype: Turano-Mediterranean (Turano-Balkan).

***Dolichophis jugularis* (Linnaeus, 1758)**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: LC.

Chorotype: SW-Asiatic (Irano-Anatolian).

***Dolichophis schmidtii* (Nikolsky, 1909)**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: LC.

Chorotype: SW-Asiatic (Irano-Anatolian).

Genus *Eirenis* Jan, 1863***Eirenis aurolineatus* (Venzmer, 1919)**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: LC.

Distribution: Endemic.

Chorotype: Anatolian endemic.

***Eirenis barani* (Schmidtler, 1988)**Turkish Subspecies: *E. b. barani* (Schmidtler, 1988);*E. b. bischofforum* (Schmidtler, 1997).

Conservation status IUCN: LC.

Chorotype: S-Anatolian (Taurian) endemic.

***Eirenis collaris* (Ménétries, 1832)**Turkish Subspecies: *E. c. collaris* (Ménétries, 1832);*E. c. macropilotus* (Werner, 1903).

Conservation status IUCN: LC.

Chorotype: SW-Asiatic (Irano-Caucasian).

***Eirenis coronelloides* (Jan, 1862)**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: LC.

Chorotype: Mesopotamian.

***Eirenis decemlineatus* (Duméril, Bibron and Duméril, 1854)**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: LC.

Chorotype: E-Mediterranean (Palaestino-Turanian).

***Eirenis eiselti* (Schmidtler and Schmidtler, 1978)**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: LC.

Chorotype: SW-Asiatic.

***Eirenis hakkariensis* (Schmidtler and Eiselt, 1991)**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: Not listed.

Distribution: Endemic.

Chorotype: Anatolian endemic.

***Eirenis levantinus* (Schmidtler, 1993)**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: LC.

Chorotype: E-Mediterranean (Palaestino-Turanian).

***Eirenis lineomaculatus* (Schmidt, 1939)**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: LC.

Chorotype: E-Mediterranean (Palaestino-Turanian).

***Eirenis modestus* (Martin, 1838)**Turkish Subspecies: *E. m. modestus* (Martin, 1838); *E.**m. cilicius* (Schmidtler, 1993); *E. m. semimaculatus* (Boettger, 1876).

Conservation status IUCN: LC.

Chorotype: SW-Asiatic (Anatolo-Caucasian endemic).

***Eirenis occidentalis* Rajabizadeh, Nagy, Adriaens, Avcı, Masroor, Schmidtler, Nazarov, Esmacılı and Christiaens, 2015**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: Not listed.

Chorotype: SW-Asiatic.

***Eirenis punctatolineatus* (Boettger, 1892)**

Turkish Subspecies: Nominotypical subspecies.

Conservation status IUCN: LC.

Chorotype: Armeno-E-Anatolian endemic.

***Eirenis rothii* (Jan, 1863)**

Turkish Subspecies: Monotypic subspecies.
 Conservation status IUCN: LC.
 Chorotype: E-Mediterranean (Palaestino-Turanian).

***Eirenis thospitis* (Schmidtler and Lanza, 1990)**

Turkish Subspecies: Monotypic subspecies.
 Conservation status IUCN: DD.
 Chorotype: Irano-E-Anatolian endemic.

Genus *Elaphe* Wagler, 1833***Elaphe dione* (Pallas, 1773)**

Turkish Subspecies: Monotypic subspecies.
 Conservation status IUCN: LC.
 Chorotype: Turanian.

***Elaphe sauromates* (Pallas, 1811)**

Turkish Subspecies: Monotypic subspecies.
 Conservation status IUCN: LC.
 Chorotype: E-Mediterranean.

***Elaphe urartica* Jablonski, Kukushkin, Avci, Bunyatova, Ilgaz, Tuniyev and Jandzik, 2019**

Turkish Subspecies: Monotypic subspecies.
 Conservation status IUCN: Not listed.
 Chorotype: SW-Asiatic (Anatolo-Armeno-Caucasian).

Genus *Hemorrhoids* Boie, 1826***Hemorrhoids nummifer* (Reuss, 1834)**

Turkish Subspecies: Monotypic subspecies.
 Conservation status IUCN: LC.
 Chorotype: Turano-Mediterranean (Turano-E Mediterranean).

***Hemorrhoids ravergeri* (Ménétries, 1832)**

Turkish Subspecies: Monotypic subspecies.
 Conservation status IUCN: LC.
 Chorotype: Centralasiatic.

**Genus *Muhtarophis* Avci, Ilgaz, Rajabizadeh, Yılmaz, Üzümlü, Adriaens, Kumlutaş and Olgun, 2015
Muhtarophis barani Olgun, Avci, Ilgaz, Üzümlü and Yılmaz, 2007**

Turkish Subspecies: Monotypic subspecies.
 Conservation status IUCN: DD.
 Distribution: Endemic.
 Chorotype: Anatolian endemic.

Genus *Platyceps* Blyth, 1860***Platyceps collaris* (Müller, 1878)**

Turkish Subspecies: Monotypic subspecies.
 Conservation status IUCN: LC.
 Chorotype: Mediterranean.

***Platyceps najadum* (Eichwald, 1831)**

Turkish Subspecies: *P. n. najadum* (Eichwald, 1831); *P. n. dahli* (Schinz, 1835).
 Conservation status IUCN: LC.
 Chorotype: Turano-Mediterranean (Turano-Balkan).

***Platyceps ventromaculatus* (Gray, 1834)**

Turkish Subspecies: Monotypic subspecies.
 Conservation status IUCN: Not listed.
 Chorotype: SW-Asiatic (Sindo-Mesopotian).

Genus *Rhynchocalamus* Günther, 1864***Rhynchocalamus melanocephalus* (Jan, 1862)**

Turkish Subspecies: Monotypic subspecies.
 Conservation status IUCN: LC.
 Chorotype: SW-Asiatic (Sindo-Palaetianian).

***Rhynchocalamus satunini* (Nikolsky, 1899)**

Turkish Subspecies: Monotypic subspecies.
 Conservation status IUCN: Not listed.
 Chorotype: SW-Asiatic.

Genus *Spalerosophis* Jan, 1865***Spalerosophis diadema* (Schlegel, 1837)**

Turkish Subspecies: *S. d. cliffordii* (Schlegel, 1837).
 Conservation status IUCN: Not listed.
 Chorotype: Saharo-Turano-Sindian.

Genus *Telescopus* Wagler, 1830***Telescopus fallax* (Fleischmann, 1831)**

Turkish Subspecies: *T. f. fallax* (Fleischmann, 1831); *T. f. iberus* (Eichwald, 1831); *T. f. syriacus* (Boettger, 1880).
 Conservation status IUCN: LC.
 Chorotype: Turano-Mediterranean (Turano-Balkan).

***Telescopus nigriceps* (Ahl, 1924)**

Turkish Subspecies: Monotypic subspecies.
 Conservation status IUCN: LC.
 Chorotype: SW-Asiatic.

Genus *Zamenis* Wagler, 1830***Zamenis hohenackeri* (Strauch, 1873)**

Turkish Subspecies: *Z. h. hohenackeri* (Strauch, 1873); *Z. h. lyciensis* Hofmann, Mebert, Schulz, Helfenberger, Göçmen, and Böhme 2018; *Z. h. tauricus* (Werner, 1898).
 Conservation status IUCN: LC.
 Chorotype: SW-Asiatic (Anatolo-Caucasian).

***Zamenis longissimus* (Laurenti, 1768)**

Turkish Subspecies: Monotypic subspecies.
 Conservation status IUCN: LC.
 Chorotype: S-European.

***Zamenis situla* (Linnaeus, 1758)**

Turkish Subspecies: Monotypic subspecies.
 Conservation status IUCN: LC.
 Chorotype: E-Mediterranean.

Family Psammophiidae Bourgeois, 1968**Genus *Malpolon* Fitzinger, 1826*****Malpolon insignitus* (Geoffroy Saint-Hilaire, 1827)**

Turkish Subspecies: Nominotypical subspecies.
 Conservation status IUCN: LC.
 Chorotype: Mediterranean.

Family Natricidae Bonaparte, 1838**Genus *Natrix* Laurenti, 1768*****Natrix natrix* (Linnaeus, 1758)**

Turkish Subspecies: *N. n. persa* (Pallas, 1814); *N. n. syriaca* (Hecht, 1930).
 Conservation status IUCN: LC.
 Chorotype: Centralasiatic-European-Mediterranean.

***Natrix tessellata* (Laurenti, 1768)**

Turkish Subspecies: Monotypic subspecies.
 Conservation status IUCN: LC.
 Chorotype: Centralasiatic-European.

Family Elapidae Boie, 1827**Genus *Walterinnesia* Lataste, 1887*****Walterinnesia morgani* (Mocquard, 1905)**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: Not listed.

Chorotype: SW-Asiatic.

Family Viperidae Opperl, 1811**Genus *Daboia* Gray, 1842*****Daboia palaestinae* Werner, 1938**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: LC.

Chorotype: Mediterranean (Levantine).

Genus *Macrovipera* Reuss, 1927***Macrovipera lebetinus* (Linnaeus, 1758)**Turkish Subspecies: *M. l. lebetinus* (Linnaeus, 1758);*M. l. obtusa* (Dwigubsky, 1832).

Conservation status IUCN: LC.

Chorotype: Turano-Mediterranean (Turano-Anatolian).

Genus *Montivipera* Nilson, Tuniyev, Andren, Orlov, Joger, and Herrmann, 1999***Montivipera albizona* (Nilson, Andren and Flärdh, 1990)**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: EN.

Distribution: Endemic.

Chorotype: Anatolian endemic.

***Montivipera bulgardaghica* (Nilson and Andren, 1985)**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: LC.

Distribution: Endemic.

Chorotype: Anatolian endemic.

***Montivipera raddei* (Boettger, 1890)**Turkish Subspecies: *M. r. raddei* (Boettger, 1890); *M. r. kurdistanica* (Nilson and Andren, 1986).

Conservation status IUCN: NT.

Chorotype: SW-Asiatic (Irano-Caucasian).

***Montivipera wagneri* (Nilson and Andren, 1984)**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: CR.

Distribution: Endemic.

Chorotype: Anatolian endemic.

***Montivipera xanthina* (Gray, 1849)**Turkish Subspecies: *M. x. xanthina* (Gray, 1849); *M. x. varoli* Afsar, Yakın, Çiçek, and Ayaz, 2019.

Conservation status IUCN: LC.

Chorotype: E-Mediterranean.

Genus *Vipera* Laurenti, 1768***Vipera ammodytes* (Linnaeus, 1758)**Turkish Subspecies: *V. a. meridionalis* (Boulenger, 1903); *V. a. montandoni* (Boulenger, 1904).

Conservation status IUCN: LC.

Chorotype: E-Mediterranean.

***Vipera (Pelias) anatolica* (Eiselt and Baran, 1970)**Turkish Subspecies: *V. a. anatolica* (Eiselt and Baran, 1970); *V. a. senliki* Göçmen, Mebert, Karış, Oğuz, and Ursenbacher, 2017.

Conservation status IUCN: CR.

Distribution: Endemic.

Chorotype: Anatolian endemic.

***Vipera (Pelias) barani* (Böhme and Joger, 1983)**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: NT.

Distribution: Endemic.

Chorotype: Anatolian endemic.

***Vipera (Pelias) darevskii* Vedmederja, Orlov and Tuniyev, 1986**Turkish Subspecies: *V. d. kumlutasi* Tuniyev, Avcı, Tuniyev, Ilgaz, Olgun, Petrova, Bodrov, Geniez, and Teynié, 2018; *V. d. uzumorum* Tuniyev, Avcı, Tuniyev, Ilgaz, Olgun, Petrova, Bodrov, Geniez, and Teynié, 2018.

Conservation status IUCN: CR.

Chorotype: Caucasian endemic.

***Vipera (Pelias) eriwanensis* (Reuss, 1933)**

Turkish Subspecies: Nominotypical subspecies.

Conservation status IUCN: VU.

Chorotype: Caucasian endemic.

***Vipera (Pelias) kaznakovi* (Nikolsky, 1909)**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: EN.

Chorotype: Caucasian endemic.

***Vipera (Pelias) olguni* Tuniyev, Avcı, Tuniyev, Agasian, and Agasian 2012**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: Not listed.

Distribution: Endemic.

Chorotype: Anatolian endemic.

***Vipera (Pelias) pontica* (Billing, Nilson and Sattler, 1990)**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: EN.

Distribution: Endemic.

Chorotype: Anatolian endemic.

***Vipera (Pelias) sakoi* Tuniyev, Avcı, Tuniyev, Ilgaz, Olgun, Petrova, Bodrov, Geniez and Teynié, 2018**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: Not listed.

Distribution: Endemic.

Chorotype: Anatolian endemic.

***Vipera transcaucasiana* (Boulenger, 1913)**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: NT.

Chorotype: E-Mediterranean.

Family Typhlopidae Merrem, 1820**Genus *Letheobia* Cope, 1868*****Letheobia episcopus* (Franzen and Wallach, 2002)**

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: DD.

Distribution: Endemic.

Chorotype: Anatolian endemic.

Genus *Xerotyphlops* Hedges, Marion, Lipp, Marin and Vidal, 2014

Xerotyphlops vermicularis (Merrem, 1820)

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: LC.

Chorotype: Turano-Mediterranean (Turano-E Mediterranean).

Family Leptotyphlopidae Stejneger, 1892

Genus *Myriopholis* Hedges, Adalsteinsson and Branch, 2009

Myriopholis macrorhyncha (Jan, 1860)

Turkish Subspecies: Monotypic subspecies.

Conservation status IUCN: DD.

Chorotype: Palearctic and Afrotropical (Saharo-Sahelo-Sindian).

Acknowledgements

The author is grateful to Professor Dr. Çetin Ilgaz and Dr. Mehmet Kürşat Şahin for their scientific assistance with the text. The author is also grateful to Professor Aaron M. Bauer and Dr. Roberto Sindaco for their scientific contributions and Büşra Gülşah Şahin for language corrections. In addition, the author thanks the anonymous reviewers for their valuable suggestions and contributions.

Conflict of interest

The author declares that there are no conflicting issues related to this review article.

References

- Ahmadzadeh, F., Avci, A., Torki, F., Ilgaz, Ç. and Kumlutas, Y. (2011). Description of four new *Asaccus* Dixon and Anderson, 1973 (Reptilia: Phyllodactylidae) from Iran and Turkey. *Amphibia-Reptilia*, 32 (2): 185–202. <https://doi.org/10.1163/017353711X556998>
- Ahmadzadeh, F., Carretero, M. A., Harris, D. J., Perera, A. and Böhme, W. (2012). A molecular phylogeny of the eastern group of ocellated lizard genus *Timon* (Sauria: Lacertidae) based on mitochondrial and nuclear DNA sequences. *Amphibia-Reptilia*, 33 (1): 1–10. <https://doi.org/10.1163/156853811X619718>
- Ahmadzadeh, F., Flecks, M., Carretero, M. A., Böhme, W., Ilgaz, C., Engler, J.O., Harris, D. J., Üzümlü, N. and Rödder, D. (2013). Rapid lizard radiation lacking niche conservatism: ecological diversification within a complex landscape. *Journal of Biogeography*, 40: 1807–1818. <https://doi.org/10.1111/jbi.12121>
- Andres, C., Franke, F., Bleidorn, C., Bernhard, D., Schlegel, M. (2014). Phylogenetic analysis of the *Lacerta agilis* subspecies complex. - Systematics and Biodiversity, 12 (1): 43–54. <http://dx.doi.org/10.1080/14772000.2013.878000>
- Amntzen, J. W., Recuero, E., Canestrelli, D. and Martínez-Solano, I. (2013). How complex is the *Bufo bufo* species group? *Molecular Phylogenetics and Evolution*, 69: 1203–1208. <https://doi.org/10.1016/j.ympev.2013.07.012>
- Arribas, O., Ilgaz, Ç. and Kumlutas, Y. (2018). Reevaluation of the intraspecific variability in *Darevskia parvula* (Lantz and Cyren, 1913): an integrated approach using morphology, osteology and genetics (Squamata: Lacertidae). *Zootaxa*, 4472 (1): 71–099. <https://doi.org/10.11646/zootaxa.4472.1.3>
- Arribas, O., Ilgaz, Ç., Kumlutaş, Y., Durmuş, S. H., Avcı, A. and Üzümlü, N. (2013). External morphology and osteology of *Darevskia rudis* (Bedriaga, 1886), with a taxonomic revision of the Pontic and Small-Caucasus populations (Squamata: Lacertidae). *Zootaxa*, 3626 (4): 401–428. <https://doi.org/10.11646/zootaxa.3626.4.1>
- Avcı, A., Ilgaz, Ç., Başkaya, Ş., Baran, İ. and Kumlutaş, Y. (2010). Contribution to the distribution and morphology of *Pelias darevskii* (Vedmederja, Orlov Et Tuniyev 1986) (Reptilia: Squamata: Viperidae) in northeastern Anatolia. *Russian Journal of Herpetology*, 17: 1–7.
- Avcı, A., Ilgaz, Ç., Bozkurt, E., Üzümlü, N. and Olgun, K. (2015a). A New Record of *Iranolacerta brandtii* (De Filippi, 1863) (Sauria: Lacertidae) in Eastern Anatolia, Turkey. *Russian Journal of Herpetology*, 22 (1): 68–74.
- Avcı, A., Ilgaz, Ç., Rajabizadeh, M., Yılmaz, C., Üzümlü, N., Adriaens, D., Kumlutaş, Y. and Olgun, K. (2015b). Molecular Phylogeny and Micro CT-Scanning Revealed Extreme Cryptic Biodiversity in Kukri Snake, *Muhtarophis* gen. nov., a New Genus for *Rhynchocalamus barani* (Serpentes: Colubridae). *Russian Journal of Herpetology*, 22 (3): 159–174. <https://doi.org/10.30906/1026-2296-2015-22-3-159-174>
- Baig, K. J., Wagner, P., Ananjeva, N. B. and Böhme, W. (2012). A morphology-based taxonomic revision of *Laudakia* Gray, 1845 (Squamata: Agamidae). *Vertebrate Zoology*, 62 (2): 213–260.
- Baran, İ. and Atatür, M. K. (1998). *Türkiye Herpetofaunası (Kurbağa ve Sürüngenler)*. First Edition. T.C. Çevre Bakanlığı, Ankara, Turkey.
- Baran, İ., Ilgaz, Ç., Avcı, A., Kumlutaş, Y. and Olgun, K. (2012). *Türkiye Amfibi ve Sürüngenleri [The Amphibians and Reptiles of Turkey]*. TÜBİTAK Popüler Bilim Kitapları Ankara, Turkey. [in Turkish]
- Baran, İ., Tok, C. V., Olgun, K., İret, F. and Avcı, A. (2005). On viperid (Serpentes: Sauria) specimens collected from northeastern Anatolia. *Turkish Journal of Zoology*, 29: 225–228.
- Başoğlu, M. and Baran, İ. (1977). *Türkiye Sürüngenleri Kısım I. Kaplumbağa ve Kertenkeleler*. İzmir, Turkey: Ege Üniversitesi Fen Fakültesi. [in Turkish]
- Başoğlu, M. and Baran, İ. (1980). *Türkiye Sürüngenleri Kısım II. Yılanlar*. Ege Üniversitesi

- Fen Fakültesi Kitaplar Serisi, İzmir. 218 pp. [in Turkish]
- Başıoğlu, M. and Özeti, N. (1973). *Türkiye Amphibileri [The Amphibians of Turkey]*. Ege Üniversitesi Fen Fakültesi Kitaplar Serisi, İzmir. [in Turkish]
- Bellati, A., Carranza, S., Garcia-Porta, J., Fasola, M. and Sindaco, R. (2015). Cryptic diversity within the *Anatololacerta* species complex (Squamata: Lacertidae) in the Anatolian Peninsula: evidence from a multi-locus approach. *Molecular Phylogenetics and Evolution*, 82: 219–233. <https://doi.org/10.1016/j.ympev.2014.10.003>
- Bodenheimer, F. S. (1944). Introduction into knowledge of the Amphibia and Reptilia of Turkey. *Review of Faculty of Science University of Istanbul*, 9: 1–78.
- Boulenger, G. A. (1897). *The Tailless Batrachians of Europe*. Part I. Ray Society, London.
- Bozkurt, E. and Olgun, K. (2020). Taxonomic investigation of the genus *Ablepharus* (Sauria; Scincidae) with molecular and morphological methods in Anatolian populations. *Turkish Journal of Zoology*, 44: 134–145. <https://doi.org/10.3906/zoo-1911-14>
- Broadley, D. G., Wallach, V. (2007). A review of East and Central African species of *Letheobia* Cope, revived from the synonymy of *Rhinotyphlops* Fitzinger, with descriptions of five new species (Serpentes: Typhlopidae). *Zootaxa*, 1515 (1): 31–68. <https://doi.org/10.11646/zootaxa.1515.1.2>
- Bülbül, U. and Kutrup, B. (2013). Morphological and genetic variations of *Ommatotriton* in Turkey. *Animal Biology*, 63: 297–312. <https://doi.org/10.1163/15707563-00002413>
- Bülbül, U., Kurnaz, M., Eroğlu, A. İ., Koç, H. and Kutrup, B. (2018). Restricted distribution area, threat conditions and additional two new localities of *Bombina variegata* (L., 1758) (Anura: Bombinatoridae). *Russian Journal of Herpetology*, 25 (3): 236–238. <https://doi.org/10.30906/1026-2296-2018-25-3-236-238>
- Bülbül, U., Kurnaz, M., Eroğlu, A. İ., Szymura, J. M., Koç, H. and Kutrup, B. (2016). First record of *Bombina variegata* (L., 1758) (Anura: Bombinatoridae) from Turkey. *Turkish Journal of Zoology*, 40: 630–636. <https://doi.org/10.3906/zoo-1508-40>
- Cabela, A. and Grillitsch, H. (1989): Zum systematischen Status der Blindschleiche (*Anguis fragilis* Linnaeus, 1758) von Nordgriechenland und Albanien (Squamata: Anguinae). *Herpetozoa*, 2: 51–69.
- Çevik, I. E., Arıkan, H., Kaya, U. and Atatür, M. K. (2006). Comparative morphological and serological studies of three anatolian mountain frogs, *Rana macrocnemis*, *R. camerani* and *R. holtzi* (Anura Ranidae). *Amphibia-Reptilia*, 27 (1): 63–71. <https://doi.org/10.1163/156853806776051994>
- Çiçek, K. and Ayaz, D. (2015). Does the red-eared slider (*Trachemys scripta elegans*) breed in Turkey? *Hyla*, 1: 4–10.
- Dubois, A. and Bour, R. (2010). The nomenclatural status of the nomina of amphibians and reptiles created by Garsault (1764), with a parsimonious solution to an old nomenclatural problem regarding the genus *Bufo* (Amphibia, Anura) and comments on some nomina created by Laurenti (1768). *Zootaxa*, 2447 (1): 1–52. <https://doi.org/10.11646/zootaxa.2447.1.1>
- Dubois, A. and Raffaelli, J. (2009). A new ergotaxonomy of the family Salamandridae Goldfuss, 1820 (Amphibia, Urodela). *Alytes*, 26: 1–85.
- Dufresnes, C., Mazepa, G., Jablonski, D., Caliarı Oliveira, R., Wenseleers, T., Shabanov, D.A., Auer, M., Ernst, R., Ramírez-Chaves, H. E., Mulder, K. P., Simonov, E., Tiutenko, A., Kryvokhyzha, D., Wennekes, P. L., Zinenko, O. I., Korshunov, O. V., Al-Johany, A. M., Peregontsev, E. A., Betto-Colliard, C., Denoël, M., Borkin, L. J., Skorinov, D. V., Pasyukova, R. A., Mazanaeva, L. F., Rosanov, J. M., Dubey, S. and Litvinchuk, S. N. (2019). Fifteen shades of green: the evolution of *Bufo* toads revisited. *Molecular Phylogenetics and Evolution*, 141: 106615. <https://doi.org/10.1016/j.ympev.2019.106615>
- Durmuş, S. H., Kumlutaş, Y., Özdemir, A., Avcı, A. and İlgez, Ç. (2011). Morphology, taxonomic status and distribution of *Trachylepis aurata* (Linnaeus, 1758) in southeast Anatolia (Squamata: Sauria: Scincidae). *Herpetozoa*, 24: 61–71.
- Edwards, D. L. and Melville, J. (2011). Extensive phylogeographic and morphological diversity in *Diporiphora nobbi* (Agamidae) leads to a taxonomic review and a new species description. *Journal of Herpetology*, 45: 530–547.
- Ergül-Kalaycı, T., Kalaycı, G. and Özdemir, N. (2017). Phylogeny and systematics of Anatolian mountain frogs. *Biochemical Systematics and Ecology*, 73: 26–34. <https://doi.org/10.1016/j.bse.2017.06.001>
- Ficetola, G. F., Falaschi, M., Bonardi, A., Padoa-Schioppa, E., Sindaco, R. (2018). Biogeographical structure and endemism pattern in reptiles of the Western Palearctic. *Progress in Physical Geography*, 42 (2): 220–236.
- Freitas, I., Ursenbacher, S., Mebert, K., Zinenko, O., Schweiger, S., Wüster, W., Brito, J. C., Cnornja-Isailovic, J., Halpern, B., Fahd, S., Santos, X., Pleguezuelos, J. M., Joger, U., Orlov, N., Mizsei, E., Lourdais, O., Zuffi, M. A. L., Strugariu, A., Zamfirescu, S. R., Martínez-Solano, Í., Velo-Antón, G., Kaliontzopoulou, A. and Martínez-Freiría, F. (2020). Evaluating taxonomic inflation: towards evidence-based

- species delimitation in Eurasian vipers (Serpentes: Viperinae). *Amphibia-Reptilia*, 41: 285–311.
<https://doi.org/10.1163/15685381-bja10007>
- Freitas, S. N., Harris, D. J., Sillero, N., Arakelyan, M., Butlin, R. K. and Carretero, M. A. (2019). The role of hybridisation in the origin and evolutionary persistence of vertebrate parthenogens: a case study of *Darevskia* lizards. *Heredity*, 123 (6): 795–808.
<https://doi.org/10.1038/s41437-019-0256-5>
- Fritz, U., Hundsdörfer, A. K., Široký, P., Auer, M., Kami, H., Lehmann, J., Mazanaeva, L. F., Türkozan, O., Wink, M. (2007). Phenotypic plasticity leads to incongruence between morphology-based taxonomy and genetic differentiation in western Palaearctic tortoises (*Testudo graeca* complex; Testudines, Testudinidae). *Amphibia-Reptilia*, 28: 97–121.
<https://doi.org/10.1163/156853807779799135>
- Frost, D. R. (2020). Amphibian Species of the World: an Online Reference. Version 6.0. American Museum of Natural History, New York, USA.
www.research.amnh.org/herpetology/amphibia/index.html (Accessed 25 May 2020).
- Frost, D. R., Grant, T., Faivovich, J., Bain, R. H., Haas, A., Haddad, C. F. B., De Sá, R. O., Channing, A., Wilkinson, M., Donnellan, S. C., Raxworthy, C. J., Campbell, J. A., Blotto, B. L., Moler, P., Drewes, R. C., Nussbaum, R. A., Lynch, J. D., Green, D. M. and Wheeler, W. C. (2006). The amphibian tree of life. *Bulletin of the American Museum of Natural History*, 297: 1–370.
<http://dx.doi.org/10.5531/sd.sp.13>
- Gabelaia, M., Tarkhishvili, D. and Murtskhvaladze, M. (2015). Phylogeography and morphological variation in a narrowly distributed Caucasian rock lizard, *Darevskia mixta*. *Amphibia-Reptilia*, 36: 45–54.
<https://doi.org/10.1163/15685381-00002975>
- García-Porta, J., Litvinchuk, S. N., Crochet, P. A., Romano, A., Geniez, P. H., LoValvo, M., Lymberakis, P. and Carranza, S. (2012). Molecular phylogenetics and historical biogeography of the west-palaearctic common toads (*Bufo bufo* species complex). *Molecular Phylogenetics and Evolution*, 63: 113–130.
<https://doi.org/10.1016/j.ympev.2011.12.019>
- Garzoni, J. and Geniez, P. (2004). *Elaphe diene* (Pallas, 1773), a snake taxon new to the Turkish herpetofauna. *Herpetozoa*, 16 (3/4): 174–175.
- Göçmen, B. and Akman, B. (2012). *Lyciasalamandra arikani* n. sp. & *L. yehudahi* n. sp. (Amphibia: Salamandridae), two new Lycian salamanders from southwestern Anatolia. *North-Western Journal of Zoology*, 8: 181–194.
- Göçmen, B., Arikan, H. and Yalçinkaya D. (2011). A new Lycian Salamander, threatened with extinction, from the Göynü k Canyon (Antalya, Anatolia), *Lyciasalamandra irfani* n. sp. (Urodela: Salamandridae). *North-Western Journal of Zoology*, 7: 151–160.
- Göçmen, B., Karış, M., Özmen, E. and Oğuz, M. A. (2018). First record of the Palestine Viper *Vipera palaestinae* (Serpentes: Viperidae) from Anatolia. *South Western Journal of Horticulture, Biology and Environment*, 9: 87–90.
- Godinho, R., Crespo, E. G., Ferrand, N. and Harris, D. J. (2005). Phylogeny and evolution of the green lizards, *Lacerta* spp. (Squamata: Lacertidae) based on mitochondrial and nuclear DNA sequences. *Amphibia-Reptilia*, 26: 271–285.
<https://doi.org/10.1163/156853805774408667>
- Gündüz, I., Jaarola, M., Tez, C., Yenyurt, C., Polly, P. D. and Searle, J. B. (2007). Multigenic and morphometric differentiation of ground squirrels (*Spermophilus*, Sciuridae, Rodentia) in Turkey, with a description of a new species. *Molecular Phylogenetics and Evolution*, 43: 916–935.
<https://doi.org/10.1016/j.ympev.2007.02.021>
- Gür, H. (2016). The Anatolian diagonal revisited: testing the ecological basis of a biogeographic boundary. *Zoology in the Middle East*, 62 (3): 189–199.
<https://doi.org/10.1080/09397140.2016.1226544>
- Gvoždík, V., Benkovsky, N., Crottini, A., Bellati, A., Moravec, J., Romano, A., Sacchi, R. and Jandzik, D. (2013). An ancient lineage of slow worms, genus *Anguis* (Squamata: Anguidae), survived in the Italian Peninsula. *Molecular Phylogenetics and Evolution*, 69: 1077–1092.
<https://doi.org/10.1016/j.ympev.2013.05.004>
- Gvoždík, V., Jandzik, D., Lymberakis, P., Jablonski, D. and Moravec, J. (2010). Slow worm, *Anguis fragilis* (Reptilia: Anguidae) as a species complex: genetic structure reveals deep divergences. *Molecular Phylogenetics and Evolution*, 55: 460–472.
<https://doi.org/10.1016/j.ympev.2010.01.007>
- Hedges, S. B., Marion, A. B., Lipp, K. M., Marin, J. and Vidal, N. (2014). A taxonomic framework for typhlopoid snakes from the Caribbean and other regions (Reptilia, Squamata). *Caribbean Herpetology*, 49: 1–61.
<https://doi.org/10.31611/ch.49>
- Ilgaz, Ç., Kumlutaş, Y., Olgun, K. and Baran, İ. (2007). The morphology and distribution of *Ablepharus bivittatus* (Menetries, 1832) (Reptilia: Sauria: Scincidae) in Turkey. *Russian Journal of Herpetology*, 14: 91–97.
<https://doi.org/10.30906/1026-2296-2007-14-2-91-97>
- Jablonski, D., Jandzik, D., Mikuliček, P., Džukić, G., Ljubisavljević, K., Tzankov, N., Jelić, D., Thanou, E., Moravec, J. and Gvoždík, V. (2016). Contrasting evolutionary histories of the legless lizard slow worms (*Anguis*) shaped by the topography of the Balkan Peninsula. *BMC Evolutionary Biology*, 16: 99.
<https://doi.org/10.1186/s12862-016-0669-1>
- Jablonski, D., Kukushkin, O. V., Avcı, A., Bunyatova, S., Kumlutaş, Y., Ilgaz, Ç., Polyakova, E., Shiryayev, K., Tuniyev, B. and Jandzik, D. (2019). The

- biogeography of *Elaphe sauromates* (Pallas, 1814), with a description of a new rat snake species. *PeerJ*, 7: e6944.
<https://doi.org/10.7717/peerj.6944>
- Karin, B. R., Metallinou, M., Weinell, J. L., Jackman, T. R. and Bauer, A. M. (2016). Resolving the higher-order phylogenetic relationship of the circumtropical *Mabuya* group (Squamata: Scincidae): an out of Asia diversification. *Molecular Phylogenetics and Evolution*, 102: 220–232.
<https://doi.org/10.1016/j.ympev.2016.05.033>
- Kindler, C., Böhme, W., Corti, C., Gvozdik, V., Jablonski, D., Jandzik, D., Metallinou, M., Siroky, P. and Fritz, U. (2013). Mitochondrial phylogeography, contact zones and taxonomy of grass snakes (*Natrix natrix*, *N. megaloccephala*). *Zoologica Scripta*, 42 (5): 458–472.
<https://doi.org/10.1111/zsc.12018>
- Koç, H., Kutrup, B., Eroğlu, O., Bülbül, U., Kurnaz, M., Afan, F. and Eroğlu, A. İ. (2017). Phylogenetic relationships of *D. rudis* (Bedriaga, 1886) and *D. bithynica* (Mehely, 1909) based on microsatellite and mitochondrial DNA in Turkey. *Mitochondrial DNA Part A*, 28: 814–825.
<https://doi.org/10.1080/24701394.2016.1197215>
- Korkmaz, E. M., Lunt, D. H., Çıplak, B., Değerli, N. and Başbüyük, H. H. (2014). The contribution of Anatolia to European phylogeography: the centre of origin of the meadow grasshopper, *Chorthippus parallelus*. *Journal of Biogeography*, 41: 1793–1805.
<https://doi.org/10.1111/jbi.12332>
- Kornilios, P., Kumlutaş, Y., Lymberakis, P. and Ilgaz, Ç. (2018). Cryptic diversity and systematics of the Aegean *Ophiomorus* skinks (Reptilia: Squamata), with the description of a new species. *Journal of Zoological Systematics and Evolutionary Research*, 56: 364–381.
<https://doi.org/10.1111/jzs.12205>
- Kornilios, P., Thanou, E., Lymberakis, P., Ilgaz, Ç., Kumlutaş, Y. and Leaché, A. (2019). Genome-wide markers untangle the green-lizard radiation in the Aegean Sea and support a rare biogeographical pattern. *Journal of Biogeography*, 46: 552–567.
<https://doi.org/10.1111/jbi.13524>
- Kornilios, P., Thanou, E., Lymberakis, P., Ilgaz, Ç., Kumlutaş, Y. and Leaché, A. (2020). A phylogenomic resolution for the taxonomy of Aegean green lizards. *Zoologica Scripta*, 49: 14–27.
<https://doi.org/10.1111/zsc.12385>
- Kotsakiozi, P., Jablonski, D., Ilgaz, Ç., Kumlutaş, Y., Avcı, A., Meiri, S., Itescu, Y., Kukushkin, O., Gvozdik, V., Scillitani, G., Roussos, S. A., Jandzik, D., Kasapidis, P., Lymberakis, P. and Poulakakis, N. (2018). Multilocus phylogeny and coalescent species delimitation in Kotschy's gecko, *Mediodactylus kotschyi*: hidden diversity and cryptic species. *Molecular Phylogenetics and Evolution*, 125: 177–187.
<https://doi.org/10.1016/j.ympev.2018.03.022>
- Kumlutaş, Y., Arkan, H., Ilgaz, Ç. and Kaska, Y. (2007). A new subspecies, *Eumeces schneideri barani* n. ssp (Reptilia: Sauria: Scincidae) from Turkey. *Zootaxa*, 1387 (1): 27–38.
<https://doi.org/10.11646/zootaxa.1387.1.2>
- Kumlutaş, Y., Baran, İ., Taşkavak, E., Ilgaz, Ç. and Avcı, A. (2002b). Occurrence of *Mesalina brevirostris* (Reptilia: Sauria: Lacertidae), the Blanford's short-nosed desert lizard in Turkey. *The Journal of Zoology*, 48: 256–257.
- Kumlutaş, Y., Taşkavak, E., Baran, İ., Ilgaz, Ç. and Avcı, A. (2002a). First record of Blanford's short-nosed desert Lizard *Mesalina brevirostris* Blanford 1874, from Anatolia. *Herpetozoa*, 15 (3/4): 171–178.
- Kurnaz, M. and Hosseinian-Yousefkhani, S. S. (2020). Ecological niche divergence between *Darevskia rudis* and *D. bithynica* (Lacertidae) in Turkey. *Biologia*, 75: 1307–1312.
<https://doi.org/10.2478/s11756-019-00374-0>
- Kurnaz, M., Kutrup, B., Hosseinian-Yousefkhani, S. S., Koç, H., Bülbül, U. and Eroglu, A. İ. (2019). Phylogeography of the red-bellied lizard, *Darevskia parvula* in Turkey. *Mitochondrial DNA Part A*, 30: 556–566.
<https://doi.org/10.1080/24701394.2019.1580270>
- Litvinchuk, S. N., Zuiderwijk, A., Borkin, L. J. and Rosanov, J. M. (2005). Taxonomic status of *Triturus vittatus* (Amphibia: Salamandridae) in western Turkey: trunk vertebrae count, genome size and allozyme data. *Amphibia-Reptilia*, 26: 305–323.
<https://doi.org/10.1163/156853805774408685>
- Macey, J. R., Schulte, J. A., Larson, A., Ananjeva, N. B., Wang, Y., Pethiyagoda, R., Rastegar-Pouyani, N. and Papenfuss, T. J. (2000). Evaluating trans-Tethys migration: an example using acrodont lizard phylogenetics. *Systematic Biology*, 49: 233–256.
<https://doi.org/10.1093/sysbio/49.2.233>
- Mahlow, K., Tillack, F., Schmidtler, J. F. and Müller, J. (2013). An annotated checklist, description and key to the dwarf snakes of the genus *Eirenis* Jan, 1863 (Reptilia: Squamata: Colubridae), with special emphasis on the dentition. *Vertebrate Zoology*, 63: 41–85.
- Melville, J., Hale, J., Mantziou, G., Ananjeva, N. B., Milto, K. and Clem Ann, N. (2009). Historical biogeography, phylogenetic relationships and intraspecific diversity of agamid lizards in the central Asian deserts of Kazakhstan and Uzbekistan. *Molecular Phylogenetics and Evolution*, 53: 99–112.
<https://doi.org/10.1016/j.ympev.2009.05.011>
- Mertens, R. (1952). Amphibien und reptilien aus der Türkei. *Review of Faculty of Science University of Istanbul*, 17: 41–45.
- Mittermeier, R. A., Gil, P. R., Hoffman, M., Pilgrim, J., Brooks, T., Mittermeier, C. G., Lamoreux, J.

- and Da Fonseca, G. A. B., eds. (2004). Hotspots Revisited. CEMEX, Mexico City, Mexico 390 pp.
- Mutun, S. (2010). Intraspecific genetic variation and phylogeography of the oak gallwasp *Andricus caputmedusae* (Hymenoptera: Cynipidae): effects of the Anatolian diagonal. *Acta Zoologica Academiae Scientiarum Hungaricae*, 56: 153–172.
- Nagy, Z. T., Schmidler, J. F., Joger, U. and Wink, M. (2003). Systematik der Zwergnattern (Reptilia: Colubridae: *Eirenis*) und verwandter Gruppen anhand von DNA-Sequenzen und morphologischer Daten. *Salamandra*, 39 (3/4): 149–168.
- Olgun, K., Avci, A., Bozkurt, E., Üzümlü, N., Olgun, H. and Ilgaz, Ç. (2016). A new subspecies of Anatolia Newt, *Neurergus strauchii* (Steindachner, 1887) (Urodela: Salamandridae), from Tuncili, eastern Turkey. *Russian Journal of Herpetology*, 23: 271–277.
<https://doi.org/10.30906/1026-2296-2016-23-4-271-277>
- Olgun, K., Avci, A., Ilgaz, Ç., Üzümlü, N. and Yilmaz, C. (2007). A new species of *Rhynchocalamus* (Reptilia: Serpentes: Colubridae) from Turkey. *Zootaxa*, 1399 (1): 57–68.
<https://doi.org/10.11646/zootaxa.1399.1.2>
- Orlov, N. L. and Tuniyev, B. S. (1987). Novyi vid uzha *Natrix megalcephala* sp. nov. s Kavkaza (Ophidia: Colubridae). *Trudy Zoologicheskogo Instituta Akademii Nauk SSSR*, 158: 116–130.
- Öz, M. (1994). A new form of *Neurergus strauchii* (Urodela, Salamandridae) from Turkey. *Turkish Journal of Zoology*, 18: 115–117.
- Özdemir, N., Dursun, C., Üzümlü, N., Kutrup, B. and Gül, S. (2020). Taxonomic assessment and distribution of common toads (*Bufo bufo* and *B. verrucosissimus*) in Turkey based on morphological and molecular data. *Amphibia-Reptilia*, 41 (3): 399–411.
<https://doi.org/10.1163/15685381-bja10009>
- Özdemir, N., Gül, S., Poyarkov, N. A., Kutrup, B., Tosunoğlu, M. and Doglio, S. (2014). Molecular systematics and phylogeography of *Bufo variabilis* (syn. *Pseudepidalea variabilis*) (Pallas, 1769) in Turkey. *Turkish Journal of Zoology*, 38 (4): 412–420.
<https://doi.org/10.3906/zoo-1307-27>
- Özdemir, N., Üzümlü, N., Avci, A. and Olgun, K. (2009). Phylogeny of *Neurergus crocatus* and *Neurergus strauchii* in Turkey based on morphological and molecular data. *Herpetologica*, 65: 280–291.
<https://doi.org/10.1655/07-047R2.1>
- Pabijan, M., Zieliński, P., Dudek, K., Stuglik, M. and Babik, W. (2017). Isolation and gene flow in a speciation continuum in newts. *Molecular Phylogenetics and Evolution*, 116: 1–12.
<https://doi.org/10.1016/j.ympev.2017.08.003>
- Picariello, O., Feliciello, I., Scillitani, G., Cataudo, A., Maresca, I. and Chinali, G. (1999). Morphological and molecular evidence supporting the taxonomic identity of *Rana macrocnemis*, *R. camerani* and *R. holtzi* (Anura Ranidae). *Hydrobiologia*, 38: 167–182.
- Poulakakis, N., Pakakic, V., Mylonas, M. and Lymberakis, P. (2008). Molecular phylogeny of the Greek legless skink *Ophiomorus punctatissimus* (Squamata: Scincidae): the impact of the mid-Aegean trench in its phylogeography. *Molecular Phylogenetics and Evolution*, 47: 396–402.
<https://doi.org/10.1016/j.ympev.2007.10.014>
- Pyron, R. A., Burbrink, F. T. and Wiens, J. J. (2013). A phylogeny and revised classification of Squamata, including 4161 species of lizards and snakes. *BMC Evolutionary Biology*, 13: 93.
<https://doi.org/10.1186/1471-2148-13-93>
- Rajabizadeh, M., Nagy, Z. T., Adriaens, D., Avci, A., Masroor, R., Schmidler, J., Nazarov, R., Esmaili, H. R. and Christiaens, J. (2015). Alpine-Himalayan orogeny drove correlated morphological, molecular, and ecological diversification in the Persian dwarf snake (Squamata: Serpentes: *Eirenis persicus*). *Zoological Journal of the Linnean Society*, 176 (4): 878–913.
<https://doi.org/10.1111/zoj.12342>
- Rajabizadeh, M., Pyron, A., Nazarov, R., Poyarkov, N. A., Adriaens, D. and Herrel, A. (2020). Additions to the phylogeny of colubrine snakes in Southwestern Asia, with description of a new genus and species (Serpentes: Colubridae: Colubrinae). *PeerJ*, 8: e9016.
<https://doi.org/10.7717/peerj.9016>
- Rancilhac, L., Goudarzi, F., Gehara, M., Hemami, M. R., Elmer, K. R., Vences, M. and Steinfartz, S. (2019). Phylogeny and species delimitation of near Eastern *Neurergus* newts (Salamandridae) based on genome-wide RADseq data analysis. *Molecular Phylogenetics and Evolution*, 133: 189–197.
<https://doi.org/10.1016/j.ympev.2019.01.003>
- Riemsdijk, I., Arntzen, J. W., Bogaerts, S., Franzen, M., Litvinchuk, S. N., Olgun, K. and Wielstra, B. (2017). The Near East as a cradle of biodiversity: A phylogeography of banded newts (genus *Ommatotriton*) reveals extensive inter- and intraspecific genetic differentiation. *Molecular Phylogenetics and Evolution*, 114: 75–81.
<https://doi.org/10.1016/j.ympev.2017.05.028>
- Rokas, A., Atkinson, R. J., Webster, L., Csóka, G. and Stone, G. N. (2003). Out of Anatolia: longitudinal gradients in genetic diversity support an eastern origin for a circum-Mediterranean oak gallwasp *Andricus quercustozae*. *Molecular Ecology*, 12: 2153–2174.
<https://doi.org/10.1046/j.1365-294X.2003.01894.x>

- Sagonas, K., Poulakakis, N., Lymberakis, P., Parmakelis, A., Pafilis, P. and Valakos, E. D. (2014). Molecular systematics and historical biogeography of the green lizards (*Lacerta*) in Greece: insights from mitochondrial and nuclear DNA. *Molecular Phylogenetics and Evolution*, 76: 144–154. <https://doi.org/10.1016/j.ympev.2014.03.013>
- Şahin, M. K., Candan, K., Yıldırım-Caynak, E., Kumlutaş, Y., Ilgaz, Ç. (2021). Ecological niche divergence contributes species differentiation in worm lizards (*Blanus* sp.) (Squamata: Amphisbaenia: Blanidae) in Mediterranean part of Anatolian peninsula and the Levantine region. *Biologia*, 76: 525–532. <https://doi.org/10.2478/s11756-020-00548-1>
- Schmidt, K. P. (1939). Reptiles and Amphibians from southwestern Asia. *Zoology Series Field Museum National History Chicago*, 24, 49–92.
- Schmidtler J. J. and Schmidtler J. F. (1975). Untersuchungen an westpersischen Bergbachmolchen der Gattung *Neurergus*. *Salamandra*, 11: 84–98.
- Schmidtler, J. F. (1993). Zur Systematik und Phylogenie des *Eirenis modestus*-Komplexes in Süd-Anatolien. *Spixiana*, 16 (1): 79–96.
- Schmidtler, J. F. (1997a). Die *Ablepharus kitaibelii* – Gruppe in Süd-Anatolien und benachbarten Gebieten. *Herpetozoa*, 10: 35–63.
- Schmidtler, J. F. (1997b): Die Zwergnattern (*Eirenis modestus*-Komplex) des Antitaurus in Süd-Anatolien und ihre geographischen Beziehungen zur begleitenden Herpetofauna. *Salamandra*, 33 (1): 33–60.
- Şekercioğlu, Ç. H., Anderson, S., Akçay, E., Bilgin, R., Can, Ö. E., Semiz, G., Tavşanoğlu, Ç., Yokeş, M. B., Soyumert, A., Sağlam, İ. K., Yücel, M. and Dalfes, H. N. (2011). Turkey's globally important biodiversity in crisis. *Biological Conservation*, 144: 2752–2769. <https://doi.org/10.1016/j.biocon.2011.06.025>
- Sindaco, R., Kornilios, P., Sacchi, R. and Lymberakis, P. (2014). Taxonomic reassessment of *Blanus strauchi* (Bedriaga, 1884) (Squamata: Amphisbaenia: Blanidae), with the description of a new species from south-east Anatolia (Turkey). *Zootaxa*, 3795 (3): 311–326. <https://doi.org/10.11646/zootaxa.3795.3.6>
- Sindaco, R., Venchi, A., Carpaneto, G. M. and Bologna, M. A. (2000). The reptiles of Anatolia: a checklist and zoogeographical analysis. *Biogeographica*, 21: 441–554. <https://doi.org/10.21426/B6110017>
- Sindaco, R., Venchi, A., Grieco, C. (2013). *The reptiles of the Western Palearctic. 2. Annotated checklist and distributional atlas of the snakes of Europe, North Africa, Middle East and Central Asia, with an update to the Volume 1*. Monografie della Societas Herpetologica Italica - I. Edizioni Belvedere, Latina (Italy). 543 pp.
- Sivan, N. and Werner, Y. L. (2003). Revision of the Middle-Eastern dwarf-snakes commonly assigned to *Eirenis coronella* (Colubridae). *Zoology in the Middle East*, 28 (1): 39–59. <https://doi.org/10.1080/09397140.2003.10637955>
- Skorinov D. V., Doronin, I. V., Kidov, A. A., Tuniev, B. S. and Litvinchuk, S. N. (2014). Distribution and conservation status of the Caucasian newt, *Lissotriton lantzi* (Wolterstorff, 1914). *Russian Journal of Herpetology*, 21 (4): 251–268. <https://doi.org/10.30906/1026-2296-2014-21-4-251-268>
- Skourtanioti, E., Kapli, P., Ilgaz, Ç., Kumlutaş, Y., Avci, A., Ahmadzadeh, F., Crnobrnja-Isailović, J., Gherghel, I., Lymberakis, P. and Poulakakis, N. (2016). A reinvestigation of phylogeny and divergence times of the *Ablepharus kitaibelii* species complex (Sauria, Scincidae) based on mtDNA and nuDNA genes. *Molecular Phylogenetics and Evolution*, 103: 199–214. <https://doi.org/10.1016/j.ympev.2016.07.005>
- Šmíd, J., Moravec, J., Gvoždík, V., Štundl, J., Frynta, D., Lymberakis, P., Kapli, P., Wilms, T., Schmitz, A., Shobrak, M., Hosseinian-Yousefkhani, S. S., Rastegar-Pouyani, E., Castilla, A. M., Els, J. and Mayer, W. (2017). Cutting the Gordian Knot: Phylogenetic and ecological diversification of the *Mesalina brevirostris* species complex (Squamata, Lacertidae). *Zoologica Scripta*, 46 (6): 649–664. <https://doi.org/10.1111/zsc.12254>
- Speybroeck, J., Beukema, W., Dufresnes, C., Fritz, U., Jablonski, D., Lymberakis, P., Martínez-Solano, I., Razzetti, E., Vamberger, M., Vences, M., Vörös J. and Crochet, P. A. (2020). Species list of the European herpetofauna - update by the Taxonomic Committee of the Societas Europaea Herpetologica. *Amphibia-Reptilia*, 41: 139–189. <https://doi.org/10.1163/15685381-bja10010>
- Stümpel, N. and Joger, U. (2009). Recent advances in phylogeny and taxonomy of Near and Middle Eastern Vipers - an update. *ZooKeys*, 31: 179–191. <https://doi.org/10.3897/zookeys.31.261>
- Stümpel, N., Rajabizadeh, M., Avci, A., Wüster, W. and Joger, U. (2016). Phylogeny and diversification of mountain vipers (*Montivipera*, Nilson et al., 2001) triggered by multiple Plio-Pleistocene refugia and high-mountain topography in the Near and Middle East. *Molecular Phylogenetics and Evolution*, 101: 336–351. <https://doi.org/10.1016/j.ympev.2016.04.025>
- Tavşanoğlu, Ç. (2016). Anadolu'nun yüksek biyoçeşitliliği: evrim bunun neresinde? Akış, I. ve Altınışık, N.E. (Editörler) Yazılama Yayınevi, İstanbul, s. 207–225.
- Trape, J. F. (2002). Note sur le statut et la repartition de quelques Leptotyphlopides du Sahara et des savanes d'Afrique de l'Ouest. *Bulletin de la Société Hérpétologique de France*, 102: 49–62.

- Tuniyev, B. S., Avcı, A., Ilgaz, Ç., Olgun, K., Petrova, T. V., Bodrov, S. Y., Geniez, P. and Teynye, A. (2018). On taxonomic status of shield-head vipers from Turkish lesser Caucasus and east Anatolia. *Proceedings of the Zoological Institute RAS*, 322: 3–44.
- Tuniyev, B. S., Tuniyev, S. B., Avcı, A. and Ilgaz, Ç. (2014). Herpetological studies in eastern and north-eastern Turkey. *Current Studies in Herpetology*, 14 (1/2): 44–53.
- Tuniyev, S. B., Avcı, A., Tuniyev, B. S., Agasian, A.L. and Agasian L. A. (2012). Description of a new species of Shield-Head Vipers – *Pelias olguni* sp. nov. from basin of upper flow of the Kura River in Turkey. *Russian Journal of Herpetology*, 19: 314–332.
<https://doi.org/10.30906/1026-2296-2012-19-4-314-332>
- Türkozan, O., Kiremit, F., Lavin, B. R., Bardakçı, F. and Parham, J. F. (2018). Morphological and mitochondrial variation of spur-thighed tortoises, *Testudo graeca*, in Turkey. *Herpetological Journal*, 28 (1): 1–9.
- Türkozan, O., Olgun, K., Taskavak, E. and Kiremit, F. (2004). On the occurrence of Zagros Mountain Tortoise, *Testudo perses* Perälä 2002, in Turkey. *Russian Journal of Herpetology*, 11(2): 150–154.
<https://doi.org/10.30906/1026-2296-2004-11-2-150-154>
- Uetz, P., Freed, P. and Hošek, J. (eds.) (2020) The Reptile Database, <http://www.reptile-database.org> (Accessed in 24 May 2020).
- Ursenbacher, S., Schweiger, S., Tomović, L., Crnobrnja-Isailović, J., Fumagalli, L. and Mayer, W. (2008). Molecular phylogeography of the nose-horned viper (*Vipera ammodytes*, Linnaeus (1758)): evidence for high genetic diversity and multiple refugia in the Balkan Peninsula. *Molecular Phylogenetics and Evolution*, 46: 1116–1128.
<https://doi.org/10.1016/j.ympev.2007.11.002>
- Vamberger, M., Stuckas, H., Ayaz, D., Gracia, E., Aloufi, A. A., Els, J., Mazanaeva, L. F., Kami, H. J. and Fritz, U. (2013). Conservation genetics and phylogeography of the poorly known Middle Eastern terrapin *Mauremys caspica* (Testudines: Geoemydidae). *Organisms Diversity and Evolution*, 13: 77–85.
<https://doi.org/10.1007/s13127-012-0102-6>
- Veith, M., Göçmen, B., Sotiropoulos, K., Kieren, S., Godmann, O. and Steinfartz, S. (2016). Seven at one blow: the origin of major lineages of the viviparous Lycian salamanders (*Lyciasalamandra* Veith and Steinfartz, 2004) was triggered by a single paleo-historic event. *Amphibia-Reptilia*, 37: 373–387.
<https://doi.org/10.1163/15685381-00003067>
- Veith, M., Schmidler, F., Kosuch, J., Baran, I. and Seitz, A. (2003). Paleoclimatic changes explain anatolian mountain frog evolution: a test for alternating vicariance and dispersal event. *Molecular Ecology*, 12: 185–189.
<https://doi.org/10.1046/j.1365-294X.2003.01714.x>
- Werner, F. (1902). Die Reptilien-und Amphibienfauna von Kleinasien. *Sitz Ber Akad Wiss Wien, Mathemat-Naturwiss KI Abt 1*, 111: 1057–1121.
- Wielstra, B. and Arntzen, J. W. (2016). Description of a new species of crested newt, previously subsumed in *Triturus ivanbureschi* (Amphibia: Caudata: Salamandridae). *Zootaxa*, 4109 (1): 73–80.
<https://doi.org/10.11646/zootaxa.4109.1.6>
- Wielstra, B., Beukema, W., Arntzen, J. W., Skidmore, A. K., Toxopeus, A. G. and Raes, N. (2012). Corresponding mitochondrial DNA and niche divergence for crested newt candidate species. *PLoS ONE*, 7: e46671.
<https://doi.org/10.1371/journal.pone.0046671>
- Wielstra, B., Bozkurt, E. and Olgun, K. (2015). The distribution and taxonomy of *Lissotriton* newts in Turkey (Amphibia, Salamandridae). *ZooKeys*, 484: 11–23.
<https://doi.org/10.3897/zookeys.484.8869>
- Wielstra, B., Litvinchuk, S. N., Naumov, B., Tzankov, N. and W. Arntzen, J. (2013). A revised taxonomy of crested newts in the *Triturus karelinii* group (Amphibia: Caudata: Salamandridae), with the description of a new species. *Zootaxa*, 3682 (3): 441–453.
<https://doi.org/10.11646/zootaxa.3682.3.5>
- Yıldız, M. Z. and Igci, N. (2015). On the occurrence of the Persian Lizard, *Iranolacerta brandtii* (DE Felippi, 1863) (Squamata: Sauria: Lacertidae) in Eastern Anatolia, Turkey. *Biharean Biologist*, 9 (1): 66–71.