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Annotated checklist of the herpetofauna (Amphibia, Reptilia) of Mount Ararat and surroundings

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***Abstract.*—Presented is a comprehensive overview of data on the herpetological species occurring in the Ararat region of Turkey. A total of 41 species, including their first records, published historical localities, and respective sources, are recorded in this assessment of surprisingly high regional species richness.**

Keywords. Zoogeography, Turkey, species richness, reptiles, amphibians, survey

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Introduction

Mount Ararat, Turkey's highest mountain peak, reaches an elevation of 5,137 m a.s.l. The Ararat massif is about 40 km in diameter and is of volcanic origin. As the presumed resting place of Noah's Ark, Mount Ararat, or Büyük Ağrı Dağı, as the mountain is called in Turkish, has for some people reached mythical dimensions. The region has a very rich diversity of flora and fauna. It is positioned on Turkey's northeasternmost national frontier and is bordered by Armenia, Nakhchivan, and Iran.
The mountain and its surroundings have been visited by several zoological expeditions over the past century. Early herpetological records were collected by Boettger (1892), Méhely (1894), Başoğlu (1945), and Clark and Clark (1973). Since the 1980s, publications from explorations followed more rapidly, for instance Flärdh (1983), Teynié (1987, 1991), Mulder (1995), Garzoni and Geniez (2004), İlgaz et al. (2005), Baran et al. (2005), and Tosunoğlu et al. (2010).

The principal objective of this survey is to provide a checklist of the amphibians and reptiles known to inhabit Mount Ararat and surroundings.

Materials and Methods

The basis of this survey is formed by several personal herpetological observations recorded during multiple explorations in the region. Most of these observations, including some first records for the area, have been published previously (Mulder 1995). However, in an attempt to assemble a comprehensive species list for the area, these are supplemented by a full literature and online source search.

The area under study is the entire province (il) of Iğdır (i.e., the communities Tuzluca, Iğdır, Karakoyunlu, and Aralık) and the community (ilçe) of Doğubayazıt in the province of Ağrı, as shown in Fig. 1. Mount Ararat is situated in both provinces. The area under study also includes the north face of Mount Tendürek, another high mountain (3,533 m). The locality 'Tuzluca north' in Teynié (1991) is provisionally considered to be located within the borders of the province of Iğdır, though it was not possible to obtain further information from the author.

Scientific species names have been adapted to the most recent taxonomical and systematic reviews, superseding the names used in the original publications. In cases of indistinct derivation of a species in a source an explanation is given. The names used follow The Reptile Database (www.reptile-database.org).

It was decided to refrain from providing available altitudinal data here, since those data can be easily found in the original publications.

Results

Currently 41 species are recognized for the area under study, including five amphibian and 36 reptile species. All recorded amphibians are anurans. Within the class of reptiles two species are chelonians, 15 are lizards and 19 are snakes. Table 1 presents an overview of all recognized species, year of first record, and respective source citations. More comprehensive data are presented in the checklist that follows.

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Table 1. Recognized species within the area under study with references of first records.
[1] Not mentioned, given here is the year of publication;
[2] Only a few days prior to Teynié (1987);
[3] If 'north of Tuzluca' is situated within the area under study.

Species	Year of recording	Author
Bufotes variabilis	1980	Flärdh 1983
Pelophylax ridibundus	1987	Mulder in this paper
Pelobates syriacus	1988	Franzen and Sigg 1989
Rana macrocnemis	2011	AdaMerOs 2014
Hyla savignyi	1991	Mulder 1995
Mauremys caspica	1893	Méhely 1894
Testudo graeca	1967	Clark and Clark 1973
Phrynocephalus helioscopus	1893	Méhely 1894
Paralaudakia caucasia	1967	Clark & Clark 1973
Mediodactylus kotschyi	1980	Flärdh 1983
Darevskia bendimahiensis	1982	Schmidtler et al. 1994
Darevskia raddei	1980	Flärdh 1983
Darevskia valentini	1994[1]	Schmidtler et al. 1994
Eremias pleskei	1943	Başoğlu 1945
Eremias strauchi	1952[1]	Mertens 1952
Eremias suphani	1967	Clark and Clark 1973
Lacerta media	1967	Clark and Clark 1973
Lacerta strigata	1969	Baran 1980
Ophisops elegans	1987	Baran 1980
Heremites septemtaeniata	1987[2]	Mulder 1995
Eumeces schneideri	1991[1]	Teynié 1991
Pseudopus apodus	1969	Baran 1977a
Xerotyphlops vermicularis	1987	Mulder 1995
Eryx jaculus	1988	Franzen and Sigg 1989
Natrix natrix	1896	Boettger 1899
Natrix tessellata	1896	Boettger 1899
Dolichophis schmidti	1942	Mertens 1952
Eirenis collaris	1988	Franzen and Sigg 1989
Eirenis modestus	1980[1]	Başoğlu and Baran 1980
Eirenis punctatolineatus	1991[1]	Teynié 19913
Elaphe dione	1988	Garzoni and Geniez 2004
Elaphe sauromates	1896	Boettger 1899
Hemorrhois ravergieri	1940	Mertens 1952
Platyceps najadum	1987	Mulder 1995
Telescopus fallax	1987–1991	Teynié 1991[3]
Zamenis longissimus	1993	Schweiger 1994
Zamenis hohenackeri	1896	Boettger 1899
Malpolon insignitus	1967	Clark and Clark 1973
Macrovipera lebetina	1942	Mertens 1952
Montivipera raddei	1888	Boettger 1890
Vipera eriwanensis	1896	Boettger 1899

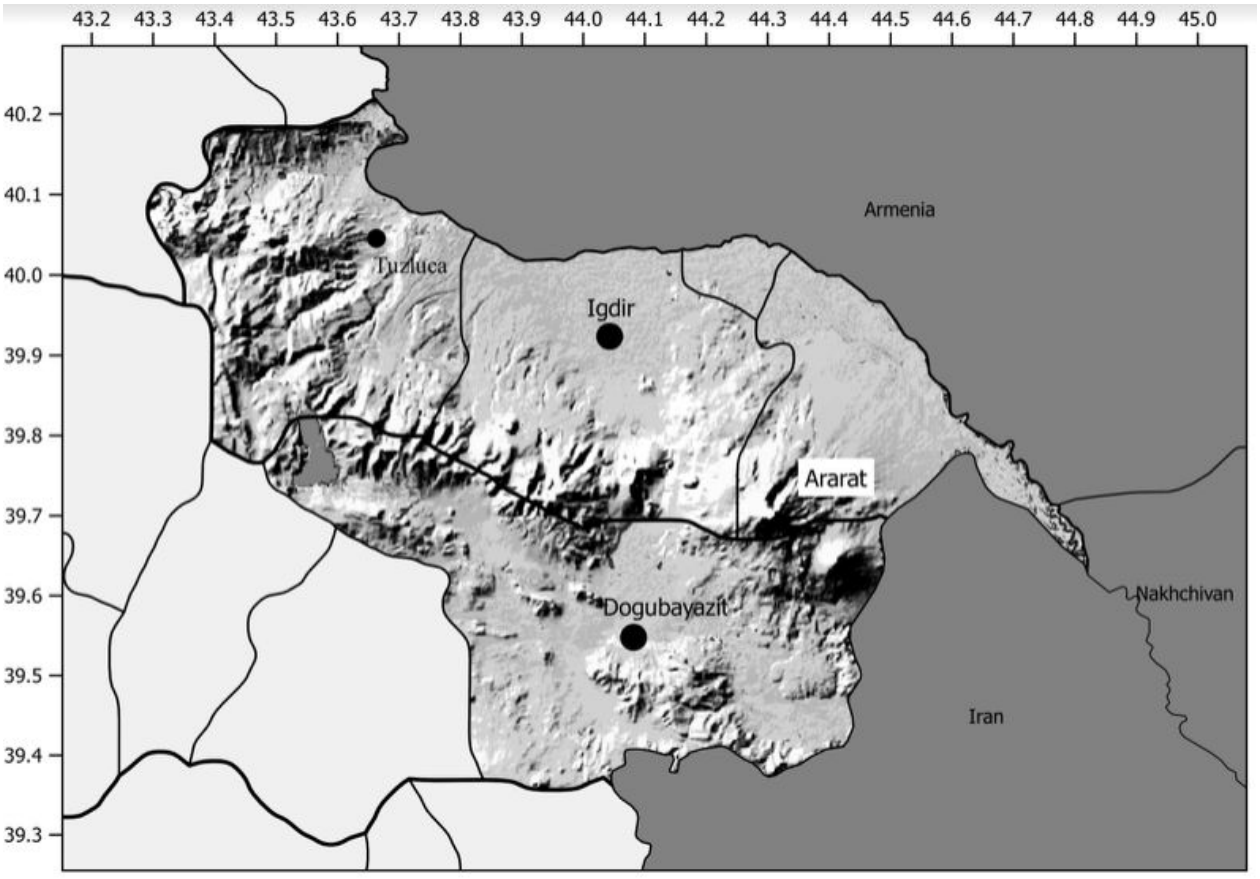

Fig. 1. The region under study, comprising the province of Iğdır and the community of Doğubayazıt in the province of Ağrı.

Checklist

Class Amphibia; Order Anura; Family Bufonidae

Bufotes variabilis (Pallas, 1769) Variable Toad

This taxon has a complex nomenclatural history. It had long been regarded as a synonym of the taxon *Bufo viridis* Laurenti 1768 and allocated to the genus *Bufo*, but was then briefly assigned to *Pseudepidalea* before *Bufotes* was chosen for this group (Frost et al. 2006; Dubois and Bour 2010; Frost 2013). The records from the area under study were undoubtedly recognized as belonging to this taxon, irrespective of the names used.

Flärdh (1983): west slope of Ararat, 1980; Franzen and Sigg (1989): surroundings of Doğubayazıt, 1988; Norström (1990): west slope of Ararat and Iğdır plain; Mulder (1995): northwest slope of Ararat, 1987; Franzen and Heckes (1999): northeast of Karabulak (Ağrı) and south of Iğdır, 1990; Fonters and Fonters (web): Iğdır plain at the height of Suveren; Tosunoğlu et al. (2010): Taşburun, 2009; AdaMerOs (web): Aralık, 2012; AdaMerOs (web): Yukarı Çırıklı köyü/Tuzluca, 2012.

Family Ranidae

Pelophylax ridibundus (Pallas, 1771) Marsh Frog

Mulder (not previously published): Karabulak, province of Ağrı, 1987; Franzen and Sigg (1989): surroundings of Doğubayazıt, 1988; Schneider and Schneider (in litt): Taşburun, 2008; Tosunoğlu et al. (2010): Taşburun, 2009; AdaMerOs (web): Tuzluca, 2013.

Pelobates syriacus Boettger, 1889 Eastern Spadefoot

Franzen and Sigg (1989): surroundings of Doğubayazıt, 1988; Franzen and Heckes (1999): northeast of Karabulak (Ağrı) and south of Iğdır, 1990; Trapp (web): Ararat; AdaMerOs (web): Yukarı Çığrıklı köyü, province of Iğdır (2011); AdaMerOs (web): Aralık, 2012.

Rana macrocnemis Boulenger, 1885 Caucasus Frog

AdaMerOs (web): Yukarı Çıyrıklı mahallesi, Tuzluca, province of Iğdır (2011).

Family Hylidae

Hyla savignyi Audouin, 1827 Middle East Tree Frog

Mulder (1995): Aralık, 1991; Schneider and Schneider (in litt): Iğdır, 2009; Tosunoğlu et al. (2010): Taşburun, province of Iğdır, 2009; AdaMerOs (web): Tuzluca, 2013.

Class Reptilia; Order Testudines; Family Geoemydidae

Mauremys caspica (Gmelin, 1774) Caspian Turtle

Méhely (1894): Aralık, 1893; Eiselt and Spitzenberger (1967): Aralık, 1893 (Méhely's data); Başoğlu and Baran (1977): Aralık, 1893 (Méhely's data); Schneider and Schneider (in litt): Aşağıçamurlu north of Ararat (39°55'33"N 44°24'39"E), 2008, 2009, 2014; Tosunoğlu et al. (2010): Taşburun, 2009.

Family Testudinidae

Testudo graeca Linnaeus, 1758 Spur-thighed Tortoise

Clark and Clark (1973): Iğdır, 1967; Baran (1980): Taşburun Köyü Iğdır, 1977; Başoğlu and Baran (1977): Doğubayazıt (Ağrı); Norström (1990): Iğdır plain; Mulder (1995): northwest slope of Ararat, province of Iğdır, 1987; Baran et al. (2004): around Aralık, 2000; Schneider and Schneider (in litt): six km south of Iğdır (39°51'10"N 44°4'13"E) and Aralık (39°50'10"N 44°31'21"E) and Taşburun (39°57'11"N 44°13'40"E), 2008–2014; Tosunoğlu et al. (2010): Taşburun, 2008; Tosunoğlu et al. (2011): between Karakoyunlu and Taşburun, Iğdır, 2008.

Order Squamata; Suborder Lacertilia; Family Agamidae

Phrynocephalus helioscopus (Pallas, 1771) Sunwatcher Toadhead Agama

The distribution of this species in Turkey is confined almost entirely within the area treated here and the plains around the foot of Mount Ararat. These plains are currently under threat due to development activities. Only Mulder (1995) mentioned its occurrence along the river Aras near Tuzluca.

Méhely (1894): Aralık, 1893; Mertens (1952): "Basköyü" (=Aralık), 1942; Clark and Clark (1973): three km west of Doğubayazıt, two km north of Doğubayazıt, 10 km south of Iğdır, 1967; Baran (1980): Devlet Üretme Çiftliği (State farm), 1969 and Taşburun Köyü Iğdır, 1977; Daszak and Cawthraw (1991): two km east of Doğubayazıt, 1989; Mulder (1995): east of Tuzluca, 1991 and 1992; Franzen and Heckes (1999): northeast of Karabulak (Ağrı) and south of Iğdır, 1990; Baran et al. (2004): six km southwest of Aralık, 2000; Schneider and Schneider (in litt): Aralık (39°50'10"N 44°31'21"E), 2008, 2009, 2011, 2014; Göçmen (web): Aralık, 2011; Tosunoğlu et al. (2011): between Karakoyunlu and Taşburun, Iğdır, 2008; Çiçek et al. (2012): Aralık.

Paralaudakia caucasia (Eichwald, 1831) Caucasian Agama

Clark and Clark (1973): 10 and 25 km south of Iğdır and 20 km north of Doğubayazıt, 1967; Baran (1980): Taşburun Köyü Iğdır, 1977; Baran et al. (1989): north slope of Tendurek between Doğubayazıt and the Ziyaret pass, 1987 and İshak Paşa Sarayı, 1969; Flärdh (1983): west slope of Ararat, 1980; Norström (1990): west slope of Ararat; Mulder (1995): Ararat northwest (Iğdır), 1987; Teynié (1987): Ararat southwest (province of Ağrı) and north of Tuzluca, 1987; Franzen and Sigg (1989): surroundings of Doğubayazıt, 1988; Daszak and Cawthraw (1991): three km east of Doğubayazıt, 1989; Franzen and Heckes (1999): northeast of Karabulak (Ağrı), 1990; Schneider and Schneider (in litt): six km south of Iğdır (39°50'10"N 44°31'21"E), 2008, 2009, 2011, 2012, 2014.

Family Gekkonidae

Mediodactylus kotschyi (Steindachner, 1870) Kotschy's Gecko

This gecko has been found in the region by just one author and urgently needs confirmation by new observations.

Flärdh (1983): west slope of Ararat, 1980.

Family Lacertidae

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

Schmidtler et al. (1994): Doğubayazıt, southwest Ararat, province of Ağrı.

Darevskia raddei (Boettger, 1892) Radde's Lizard

Flärdh (1983): west slope of Ararat, 1980; Mulder (not previously published): west slope of Ararat, province of Iğdır, 1987; Norström (1990): west slope of Ararat; Schmidtler et al. (1994): Doğubayazıt; Trapp (web): Ararat; Panner (web): Ararat, 2005, 2010.

Darevskia valentini (Boettger, 1892) Valentin's Lizard

Schmidtler et al. (1994): On the way up to Mount Ararat (north of Doğubayazıt), province of Ağrı.

Eremias pleskei Nikolsky, 1905 Pleske's Racerunner

The distribution of this species in Turkey is almost entirely confined to the focal area treated here. First record was by Başoğlu (1945), namely four females caught in 1943 at Başköy (=Aralık), province of Iğdır.

Clark and Clark (1973): 10 km south of Iğdır, 1967; Baran (1980): Taşburun Köyü Iğdır, 1977, Devlet Üretme Çiftliği (State farm), province of Iğdır, 1969; Norström (1990): Iğdır plain; Franzen and Heckes (1999):

northeast of Karabulak (Ağrı) and south of Iğdır, 1990; Baran et al. (2004): Gödekli (nine km SE of Aralık) and five km SW of Aralık, 2000; Tosunoğlu et al. (2011): between Karakoyunlu and Taşburun, Iğdır, 2008; AdaMerOs (web): Aralık, 2012.

Eremias strauchi Kessler, 1878 Strauch's Racerunner

The distribution of this species in Turkey is entirely restricted to the focal area under consideration here and encompasses the plains around the foot of Mount Ararat and along the river Aras. The locality "east of Karakurt" in the Aras valley mentioned by Mulder (1995) is the westernmost finding of the species in Turkey.

Mertens (1952): Tuzluca; Baran (1980): Devlet Üretme Çiftliği (State farm), province of Iğdır, 1969 and Çilli Geçidi, Doğubayazıt, 1975 and Taşburun Köyü Iğdır, 1977; Clark and Clark (1973): 10 km south of Iğdır, 1967; Norström (1990): plain of Iğdır; Mulder (1995): plain south of Iğdır, 1990 and east of Karakurt, 1989; AdaMerOs (web): Doğubayazıt, 2011; Franzen and Heckes (1999): northeast of Karabulak (Ağrı), 1990 and 25 km northwest of Iğdır and south of Iğdır; Baran et al. (2004): Gödekli (nine km southeast of Aralık), Torulpaşa Kışası, Aralık and five km southwest of Aralık, 2000; AdaMerOs (web): Tuzluca, 2011; Tosunoğlu et al. (2011): between Karakoyunlu and Taşburun, Iğdır, 2008.

Eremias suphani Başoğlu and Hellmich, 1968 Suphan Racerunner

The Suphan Racerunner has long been seen as a Turkish endemic species. Mulder (1995) found the species in 1988 a few kilometres from the Iranian border, so an occurrence in Iran was predictable. Rastegar-Pouyani et al. (2013) proved the occurrence on the Iranian side of the border.

Franzen and Heckes were the first to mention the occurrence of this species within the region under study, viz. near Doğubayazıt in 1999, though previously Clark and Clark had already found them in 1967 but published under the taxon strauchi.

Clark and Clark (1973): two km north of Doğubayazıt, 1967; Franzen and Heckes (1999): near İshak Paşa Sarayı, Doğubayazıt, 1988, 1990.

Lacerta media Lantz and Cyrén, 1920 Eastern Emerald Lizard

Baran et al. (2004) used the name *Lacerta trilineata trilineata* for a specimen from the Aras valley, probably indicating this species.

Clark and Clark (1973): 25 km south of Iğdır, 1967; Flärdh (1983): west slope of Ararat, 1980; Norström (1990): west slope of Ararat; Mulder (1995): Çetenli (north slope of Tendürek), 1993; Schneider and Schneider (in litt): northwest slope of Ararat (39°47'21"N 44°11'35"E), 2009; Trapp (web): Ararat.

Lacerta strigata Eichwald, 1831 Caspian Emerald Lizard

Baran (1980): Iğdır, 1969 and Taşburun Köyü Iğdır, 1977; Mulder (1995): Aralık, 1991.

Ophisops elegans Ménétries, 1832 Snake-eyed Lizard

Baran (1980): Taşburun Köyü Iğdır, 1977; Mulder (1995): Ararat northwest, 1987, 1992; Franzen and Sigg (1989): surroundings of Doğubayazıt, 1988; Trapp (web): Ararat.

Family Scincidae

Heremites septemtaeniatus (Reuss, 1834) Southern Grass Skink

Species affiliation and genus name of a few Middle-Eastern skinks were obscure for a long time. Karin et al. (2016) replaced them into the old genus name *Heremites* to solve polyphyly. Bahmani et al. (2017) solved the *auratus-septemtaeniatus* problem for this region.

Mulder (1995): northwest slope of Ararat, province of Iğdır, 1987, 1990, 1992; Teynié (1987): Ararat northwest, province of Iğdır, 1987; Franzen and Sigg (1989): surroundings of Doğubayazıt, 1988; Norström (1990): west slope of Ararat; Trapp (web): Ararat; Fonters and Fonters (2006): Iğdır plain at the height of Suveren; Schneider and Schneider (in litt.): northwest slope of Ararat, province of Iğdır (39°49'21"N 44°7'47"E and 39°47'58"N 44°10'44"E), 2008; Tosunoğlu et al. (2011): between Karakoyunlu and Taşburun, Iğdır, 2008.

Eumeces schneideri (Daudin, 1802) Schneider's Skink

Teynié (1991): northwest of Tuzluca, province of Iğdır and Ağabey (19 km west of Tuzluca); Schneider and Schneider (in litt): six km south of Iğdır (39°51'10"N 44°4'13"E), 2009; AdaMerOs (web): Melekli, 2012.

Familiy Anguidae

Pseudopus apodus (Pallas, 1775) European Glass Lizard

Baran (1977b): Iğdır side of Ararat, 1969; Mulder (1995): northwest slope of Ararat, province of Iğdır, 1987, 1990, 1992; Teynié (1987): northwest slope of Ararat, province of Iğdır, 1987; Norström (1990): west slope of Ararat; Schneider and Schneider (in litt): Tuzluca, 2008.

Suborder Serpentes; Family Typhlopidae

Xerotyphlops vermicularis (Merrem, 1820) Eurasian Blindsnake

First record in 1987 by Mulder (1995) on the plain of Iğdır at the foot of the northwest slope of Ararat.

Teynié (1991): Iğdır south/Ararat north; Tosunoğlu et al. (2010): Taşburun, 2009; Göçmen (web): Melekli, 2012; AdaMerOs (web): Tuzluca, 2014.

Family Boidae

Eryx jaculus (Linnaeus, 1758) Sandboa

Erroneously presented as first record for the region by Tosunoğlu et al. (2010).

Franzen and Sigg (1989): surroundings of Doğubayazıt, 1988; Teynié (1991): Ağabey (19 km west of Tuzluca); Norström (1990): west slope of Ararat, 1989; Schneider and Schneider (in litt.): Taşburun, 2009; Tosunoğlu et al. (2010): Melekli, 2008; Tosunoğlu et al. (2011): between Karakoyunlu and Taşburun, Iğdır, 2008.

Family Natricidae

Natrix natrix (Linnaeus, 1758) Grass Snake

Boettger (1899): Kasikoparan (=Kazkoparan), province of Iğdır, 1896; Baran (1976): Ararat Iğdır, 1969; Flärdh (1983): west slope of Ararat, 1980; Teynié (1987): northwest of Ararat, province of Iğdır, 1987; Norström (1990): west slope of Ararat; AdaMerOs (web): Tuzluca, 2012.

Natrix tesselata (Laurenti, 1768) Dice Snake

Boettger (1899): Kasikoparan (=Kazkoparan), province of Iğdır, 1896; Mertens (1952): Iğdır, 1942; Başoğlu and Baran (1980): Iğdır; Flärdh (1983): west slope of Ararat, 1980; Teynié (1987): southwest slope of Ararat, province of Ağrı, 1987; Norström (1990): Iğdır plain; Mulder (1995): northwest slope of Ararat, province of Iğdır, 1987; Franzen and Heckes (1999): northeast of Karabulak (Ağrı), 1990; Franzen and Sigg (1989): surroundings of Doğubayazıt, 1988; Schneider and Schneider (in litt): six km south of Iğdır (39°51’10”N 44°4’13”E) and two km east of Aşağıtavla/ 20 km southeast of Doğubayazıt (39°30’10”N 44°16’51”E), 2008, 2009.

Family Colubridae

Dolichophis schmidti (Nikolsky, 1909) Red-bellied Racer

Around 1990, a woman with a dead *Dolichophis schmidti* stabbed onto and twisted around a stick was witnessed standing along the road from Iğdır to Doğubayazıt at the sideway to Kavaktepe (J. Mulder, not previously published). This locality is one kilometer across the border in the province of Ağrı. This probably is the first find of this species in that province.

Mertens (1952): Iğdır, at the foot of Ararat, 1942; Başoğlu and Baran (1980): slope of Ararat, Iğdır, Flärdh (1983): west slope of Ararat, 1980; Mulder (1995): northwest slope of Ararat, province of Iğdır, 1987; Mulder (not published before): Kavaktepe, west slope of Ararat, province of Ağrı, around 1990; Norström (1990): west slope of Ararat; Franzen and Heckes (1999): northeast of Karabulak (Ağrı), 1990; AdaMerOs (web): Tuzluca, 2014.

Eirenis collaris (Ménétries, 1832) Collared Dwarf Snake

The subspecies *macrospilota* is only known from Mount Takjaltu, near Kazkoparan southwest of Tuzluca. Hitherto only two specimens have been found, in 1903 and 1913. See Darevsky and Bakradze (1982).

Franzen and Sigg (1989): surroundings of Doğubayazıt, 1988; Teynié (1991): north of Tuzluca, 1987, 1988 and Doğubayazıt, 1988; Mulder (1995): northwest slope of Ararat, province of Iğdır, 1990; AdaMerOs (web): Tuzluca, 2009, 2014.

Eirenis modestus (Martin, 1838) Dwarf Snake

Başoğlu and Baran (1980): slope of Ararat (Iğdır); Franzen and Sigg (1989): surroundings of Doğubayazıt, 1988.

Eirenis punctatolineatus (Boettger, 1892) Dotted Dwarf Snake

Teynié (1991): north of Tuzluca, between 1987– and 1989; Schneider and Schneider (in litt.): plain south of Iğdır (39°50’44”N 44°5’20”E), 2008.

Elaphe dione (Pallas, 1773) Steppe Ratsnake

In 1988 three specimens were found by Garzoni and Geniez (2004) a couple of kilometers west of the city of Iğdır. This was the first observation in Turkey. No subsequent observations are known.

Elaphe sauromates (Pallas, 1811) Blotched Snake

Boettger (1899): Kasikoparan (=Kazkoparan), province of Iğdır, 1896; Flärdh (1983): west slope of Ararat, 1980; Teynié (1987): northwest side of Ararat, province of Iğdır, 1987; Norström (1990): west slope of Ararat; Teynié (1991): Iğdır south/Ararat north.

Hemorrhois ravergieri (Ménétries, 1832) Ravergier’s Whip Snake

Mertens (1952): Ararat, 1940; Başoğlu and Baran (1980): slope of Ararat (Iğdır) and Aralık; Flärdh (1983): west slope of Ararat, 1980; Norström (1990): west slope of Ararat; Mulder (1995): northwest side of Ararat, province of Iğdır, 1987; Teynié (1987): northwest side of Ararat, province of Iğdır, 1987 and southwest side of Ararat, province of Ağrı, 1987; Teynié (1991): Ağabey (19 km west of Tuzluca).

Platyceps najadum (Eichwald, 1831) Slender Whip Snake

Mulder (1995): northwest slope of Ararat, province of Iğdır 1987, 1991, and 1992; Trapp (web): "Ararat," 2007; Schneider and Schneider (in litt.): seven km south of Iğdır (39°51'13"N 44°4'19"E), 2008.

Telescopus fallax Fleischmann, 1831 European Cat Snake

Teynié (1991): Tuzluca north, between 1987 and 1991.

Zamenis longissimus (Laurenti, 1768) Esculapean Snake

The only observation in the area treated was at Aralık and concerned two male specimens (Schweiger 1994).

Zamenis hohenackeri (Strauch, 1873) Transcaucasian Ratsnake

Boettger (1899): Kasikoparan (=Kazkoparan), province of Iğdır, 1896; Flärdh (1983): west slope of Ararat, 1980; Teynié (1987): northwest slope of Ararat, province of Iğdır, 1987; Norström (1990): west slope of Ararat; Mulder (1995): northwest slope of Ararat, province of Iğdır, 1992.

Family Lamprophiidae

Malpolon insignitus (Geoffroy de St-Hilaire, 1809) Eastern Montpellier Snake

Clark and Clark (1973): 10 km South of Iğdır, 1967; Başoğlu and Baran (1980): north of Ararat: Devlet Üretme Çiftliği (State farm) and Hasanhan near Aralık; Teynié (1991): Tuzluca west; Mulder (1995): Northwestern foot of Ararat/ Iğdır plain, 1990; Franzen and Heckes (1999): south of Iğdır, 1990; Tosunoğlu et al. (2010): Melekli köyü, 2008; Tosunoğlu et al. (2011): between Karakoyunlu and Taşburun, Iğdır, 2008.

Family Viperidae

Macrovipera lebetina (Linnaeus, 1758) Blunt-nosed Viper

Mertens (1952): "Tuzluca near Iğdir," 1942; Eiselt and Baran (1970): Devlet Üretme Çiftliği (State farm), province of Iğdır, 1969; Mulder (1995): northwest slope of Ararat, 1987, 1992; Franzen and Heckes (1999): south of Iğdır, 1990; Schneider and Schneider (in litt): Taşburun, 2008; AdaMerOs (web): Tuzluca, 2013.

Montivipera raddei (Boettger, 1890) Armenian Viper

The first record in the area under study was in the species description by Boettger (1890) on the basis of two specimens collected in 1888. The locality was mentioned as "Kasikoparan in Armenia," nowadays Kazkoparan or Kozkoparan is in the province of Iğdır, Turkey.

Mertens (1952): Tuzluca near Iğdir, 1942; Eiselt and Baran (1970): near Iğdır, on the slope of Ararat, 1969; Flärdh (1983): west slope of Ararat; Mulder (1995): western slopes of Ararat, province of Iğdır, 1987, 1988, 1989, 1991, 1992; Teynié (1987): Ararat northwest, province of Iğdır, 1987; Norström (1990): west slope of Ararat.

Vipera eriwanensis (Reuss, 1933) Armenian Steppe Viper

The locality "Kasikoparan" (=Kazkoparan, province of Iğdır) was mentioned by Boettger (in Radde 1899) as a site for Vipera berus, by Nikolsky (1916) referred to as *Coluber berus dinnicki* and subsequently assigned to *Coluber renardi*. Taking into account the known distribution of eriwanensis (just outside the province of Iğdır), assigning that record to this taxon is the only credible solution. Nilson et al. (1988) already indicated this.

Discussion

Mount Ararat and its surroundings belong among Turkey's richest regions for reptile species diversity, with 36 species. Sindaco et al. (2000) presented a map of Anatolian reptile species richness based on a grid with one-degree latitude and longitude. The region under study has a surface considerably smaller than one of those grid squares. In their publication, the richest square (province of Adana and surroundings) comprised 43 species, being the only square containing more than 40 species. Only seven out of the total of around 90 squares showed 31–40 species, all of them along the south coast and especially around the aforementioned richest square.

Although the number of observed species in and around Mount Ararat is high, the fact that many of them are represented by only one or just a few observations cannot be neglected. This scarcity of observations can be the result of insufficient research, but could also indicate relative rareness. Within the borders of Turkey some of the species are only encountered in the area under study, especially the species living on the plains around Ararat and along the river Aras.

Mountain-dwelling species can be regarded as relatively safe, but those living on the plains are under direct threat due to ongoing and expected urban expansion and intensified agricultural land use.

A summary of the herpetofauna of the province of Iğdır, which only comprizes the northern part of Mount Ararat, was published by Tosunoğlu et al. in 2010. The number of consulted sources in that paper was small (next to their own observations, just eight other sources), caus-

ing them to miss many species. Moreover, even some species from the consulted sources were not mentioned. First records of Sandboa and Grass Snake in the province of Iğdır were wrongly claimed. For the Grass Snake this was later corrected by one of the authors (Gül 2011).

A doubtful article (just a German translation available) about Urodela in Turkey by Boglu and Hayman (1978) mention *Batrachuperus* for the Ararat region: "Wir haben … einige Molchlarven erhalten welche aus dem Araratgebiet stammen und mit Sicherheit den *Batrachuperus* zugeordnet werden müssen." The occurrence of *Iranodon* (the name recently in use for *Batrachuperus*) has to be disclaimed as not reasonable. As no newts or salamanders are known for the area, any larva would be interesting though. In the same article, the 'species' *Neurergus caucasicus* is treated as occurring at Ararat. As locality they gave "Bis 2,500 m hohe Gebirgsregionen des Ararat. Aralik, Igdir, Tasburun" (high mountain region of Ararat up to 2,500 m, Aralik, Igdir, Tasburun). This species account is given next to *N. strauchii* and *N. crocatus*. The non-existent binominal name gives no clue as to which species the authors would have meant and makes the source highly unreliable. See also Schmidtler (1984), Schätti and Sigg (1989) and Olgun et al. (1997).

The locality 'Taşburun Köyü, Iğdır' was visited by Baran in 1977. For instance, *Phrynocephalus helioscopus* and *Paralaudakia caucasia* were found there (Baran 1980) and subsequently by other authors. Later, these finds were surprisingly quoted as located at 'Taşburun Köyü near Kağızman' (Baran et al. 1989), which is a mere 110 km to the west. Though the collector listed is one of the authors, this must be erroneous. The habitat seems to be inappropriate for *Phrynocephalus*.

Several additional species can be expected for the region, as they are known to occur relatively close to the area under study. They include the following taxa:

Iranolacerta brandti (De Filippi, 1863) Persian Lizard

About 20 km south of the area under study the Persian lizard was recently found in Karadulda, province of Van, 2014 (Yıldız and Iğci 2015).

Darevskia unisexualis (Darevsky, 1966) White-bellied Lizard

Schmidtler et al. (1994): Diyadin, province of Ağrı.

Parvilacerta parva (Boulenger, 1887) Dwarf Lizard

Near the area under study observations were made, e.g., between Selim and Karakurt in 1999 (Baran et al. 2004) and in the province of Ağrı in 2014 (Anonymous 2014).

Coronella austriaca Laurenti, 1768 Smooth Snake

The Smooth Snake has been found in 1942 in Böcüklü at the north border of the Aras valley (Mertens 1952; Baran 1977a), about 30 km from the area under study.

Eirenis eiselti Schmidtler and Schmidtler, 1978 Eiselt's Dwarf Snake

Mentioned as occurring in the province of Ağrı, 2014 (Anonymous 2014).

Hemorrhois nummifer (Reuss, 1834) Coin-marked Snake

The species is known from the Aras valley in Armenia (Schätti and Agasian 1985).

Rhynchocalamus melanocephalus (Jan, 1862) Black-headed Ground Snake

The Black-headed Ground Snake occurs in nearby Armenia on mountain slopes bordering the Aras Valley in Yerevan and Ararat (Arakelyan et al. 2011).

The mentioning by both Kamali (2017) and Rajabizadeh (2017) of *Dolichophis jugularis*, next to *Dolichophis schmidti*, in Iran directly bordering the Ararat region must be erroneous.

During the publication of this checklist, it became obvious that a paper was going to be published on more or less the same subject. At the Fourth International Symposium Mount Ararat and Noah's Ark in October 2017 an oral presentation was given, from which a published text became available in October 2018 (Yıldız et al. 2018).

A comparison of the results is briefly treated here. As a result of a different scope of area (more strictly around the mountain) their list is of course shorter.

The literature search is quite limited and several classic publications of well-known herpetologists treating herpetological distribution in Turkey are not included, like Méhely (1894), Mertens (1952), Eiselt and Baran (1970), Clark and Clark (1973) and Baran (1976, 1977a,b, 1980). Also, other informative sources like Flärdh (1983), Franzen and Sigg (1989), Norström (1990) and Teynié (1991) are not incorporated. This resulted in an incomplete view of the known distribution and dates of first publication and, even considering the different scope of area, the lack of several species, i.e., *Mediodactylus kotschyi*, *Lacerta media*, *Eirenis modestus*, *Eirenis punctatolineatus*, and *Elaphe sauromates*, all of which occur within their scope of area.

Species affiliation of the local Toad Head Agama is still not resolved sufficiently. It is given as *Phrynocephalus horvathi* by them and as *P. helioscopus* here (following The Reptile Database), but undoubtedly the same taxon is intended. The *Heremites* species in the region is treated by them as the species auratus, while here it is presented as *septemtaeniatus*, the latter according to Bahmani et al. (2017).

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