

Herpetological observations in Turkey (1987-1995)

Mulder, J., 1995 - Herpetological observations in Turkey (1987-1995) - DEINSEA 2: 51-66 [ISSN 0923-9308]. Published 30 November 1995.

During 13 visits to Turkey observations were made on the herpetofauna. A total of 88 taxa was recorded. From each taxon the localities, altitudes, dates and the availability of documentation by photographs and/or preserved specimens are listed. Where appropriate, comments are added on ecology, morphology, taxonomy and/or biogeography. For the species *Bufo bufo*, *Mabuya vittata*, *Leptotyphlops macrorhynchus* and *Vipera albizona* a considerable range extension was established by this study.

Herpetologische waarnemingen in Turkije (1987-1995) - Tijdens een 13-tal bezoeken aan Turkije werden observaties gedaan aan de herpetofauna. In totaal werden 88 taxa (soorten en/of ondersoorten) vastgesteld. Per taxon worden achtereenvolgens opgesomd: vindplaatsen, hoogte, datum en de eventueel aanwezige documentatie in de vorm van dia's en/of geconserveerde specimina. Bij sommige taxa is commentaar toegevoegd over ecologie, morfologie, taxonomie en/of biogeografie. Van de soorten *Bufo bufo*, *Mabuya vittata*, *Leptotyphlops macrorhynchus* en *Vipera albizona* werd een aanzienlijke uitbreiding van het verspreidingsgebied vastgesteld.

Türkiye'de yapılan herpetolojik gözlemler (1987-1995) - Türkiye'deki 13 seyahat sırasında herpetofauna gözlemlendi. Toplam olarak 88 taksa (tür ve alt-tür) bulundu. Her tür sırasıyla şöyle bildirildi: bulunış yeri, rakımı, tarihi ve muhtemelen bulunan slaytlar ve/veya muhafaza edilmiş numuneler gibi belgeler. Bazı türlere ekoloji, morfoloji, taksonomi ve/veya biojeografi hakkında açıklama ilave edilmiştir. *Bufo bufo*, *Mabuya vittata*, *Leptotyphlops macrorhynchus* ve *Vipera albizona* türlerinin yerleşim alanlarının genişlediği keşfedilmiştir.

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Keywords: Amphibia, Reptilia, biogeography, Turkey.

INTRODUCTION

Between May 1987 and May 1995 the author made 13 journeys through Turkey, with the country's herpetofauna as the main object of interest. Most of Turkey's territory was covered (Fig. 1), although some areas were more intensively studied while other observations were made more incidentally during shorter stops, causing an irregular and scattered distribution of localities. Fig. 2 gives the accumulated lo-

calities as presented in this paper. This paper aims to contribute to and to update the knowledge of the distribution of Turkish amphibians and reptiles. As the natural habitats of the country have changed a lot during the last decades (through e.g. population growth and urbanisation), also known localities are mentioned to reaffirm earlier observations which are sometimes quite old.

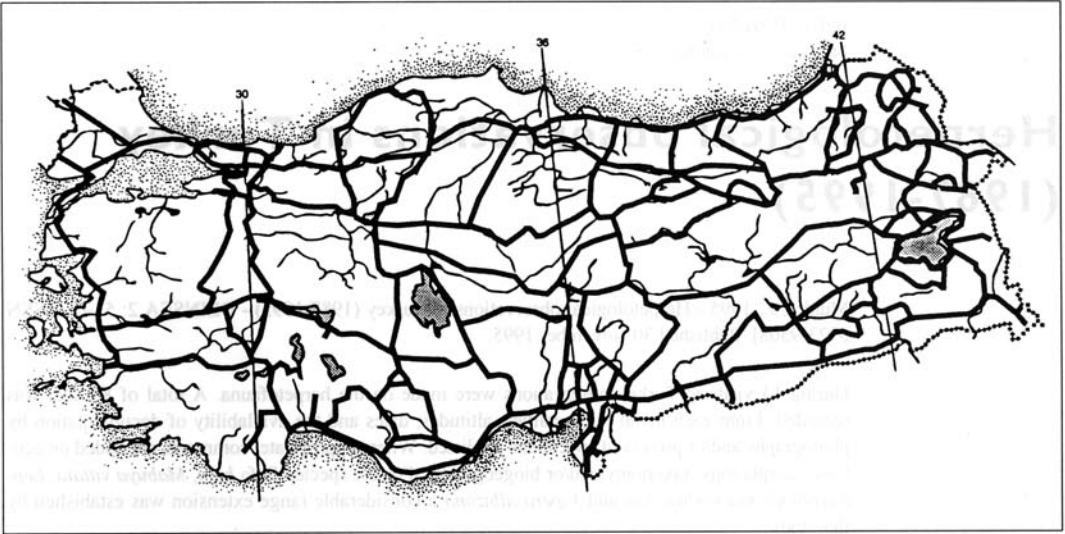


Figure 1 Roads taken by the author during 13 journeys through Turkey [map graphics Jaap van Leeuwen Design]

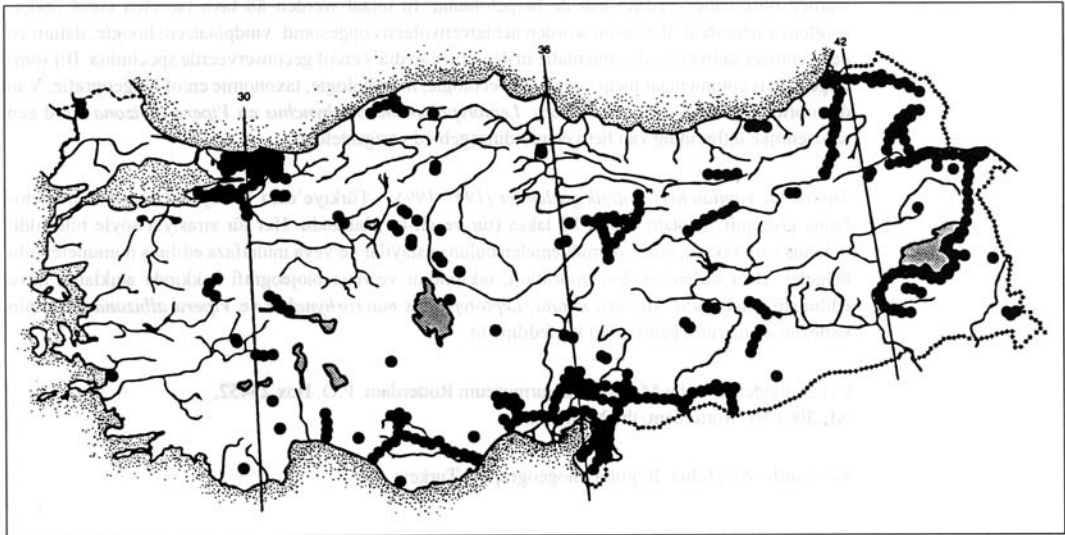


Figure 2 Approximate accumulated localities as listed in this study [map graphics Jaap van Leeuwen Design]

METHODS

The list of species is given in alphabetical order within their 'group' in stead of their systematical order, viz. the Orders Urodela (Caudata), Anura and Chelonia (Testudines) and the Suborders Sauria (Lacertilia), Amphisbaenia and Serpentes. Records are listed per (sub) species, the localities are given in alphabetical order. All data are listed in a standard sequence:

- 1 - locality;
- 2 - larger town/village in the vicinity (between brackets);
- 3 - other geographical locations e.g. mountains, lakes or rivers (underlined);
- 4 - province (in capitals);
- 5 - altitude (in meters above sea level);
- 6 - day, month and year of observation;
- 7 - documentation: colour slides (PC) or preserved specimen (NMR).

The localities are given as precise as can be or is needed. A practical map, often used in this study, is the Euro-Atlas 1:800.000 by RV Reise- und Verkehrsverlag GmbH, Germany, 1990/1991. Where necessary an extra indication is given, for example 'Kozan S' means 'a little south of Kozan', usually following a road. In cases like this the distance between the exact finding-location and the given locality (when not mentioned explicitly), depends on the amount of villages in a given area, but is normally just some kilometers and in any case less than half the distance to a place of comparable size. When villages are so small that they are not mentioned on any normal map, a bigger place is given between brackets. Names of mountains, lakes and rivers are underlined and are given as extra information, or as the primary location when there is no other locality (village or town) in the vicinity. When more localities are given with a dash (-) in between, it is meant that the taxon was observed along this trajectory in vast numbers. The province (in Turkish 'İl') is given in capitals. The altitude of the localities is recorded with an altimeter and/or noted from signs along the roads and placed directly after the province; it can have a deviation of about 50 m. Date and year are being mentioned in the order day-month-year; the month is given in Roman figures. When a record is documented by a photograph, the notation 'PC' followed by a number is given. This Photo Collection (colour slides) is in possession of the author. In case a specimen was collected and preserved the catalogue-number preceded by NMR is given. All material is deposited in the collection of the Natuurmuseum Rotterdam (NMR; Natural History Museum Rotterdam). Comments are given where appropriate. These can either be remarks on the ecology of the (sub)species, indications of taxonomical or biogeographical problems, notes on morphology or comparisons with the literature.

When not mentioned, animals were taken in the hand for determination, or field-identification was straightforward for a trained herpetologist. In addition to the listed records many other observations were made, but due to uncertain determination of sight observations, as well as to problems with identification of specimens within certain groups (e.g. parthenogenetic

Lacerta species), not all of them could be given here. The listed observations from the first trips (1987-1989) are sometimes incomplete because common species were not always registered consequently. In the course of the years the author's knowledge of the species, their distributional ranges and ecological needs increased, which is reflected in the growing amount of data as the years enter the nineties.

RECORDS

AMPHIBIA

URODELA (CAUDATA)

Triturus vittatus ophryticus (Berthold, 1846)

Dalca (S of Kandıra), KOCAELİ, 180 m, 02-V-1992 & 09-VI-1993 & 08-V-1995

Triturus vulgaris kosswigi Freytag, 1955

Dalca (S of Kandıra), KOCAELİ, 180 m, 02-V-1992 (sight observation)

ANURA

Bufo bufo (Linnaeus, 1758)

Beşkonak 4 km N, ANTALYA, 200 m, 30-VIII-1994, PC 12T002-12T007

Comment: This surprising locality is far from the known range in Turkey, which is NW and W Anatolia (Başoğlu & Özeti 1973). The length of this rather large specimen was 13 cm. The width of the mouth 4.8 cm. It was apparently a female. The specimen was found late in the evening immediately along the Köprü İrmak. Gebhart et al. (1990) mentioned this species casually from Çaltepe (25 km N of Beşkonak) in their article concerning *Mertensiella luschani*.

Bufo verrucosissimus (Pallas, 1814)

[formerly *Bufo bufo verrucosissimus* (Pallas, 1814)]
Hopa NE, ARTVİN, 200 m, 22-V-1987, PC T328 & T329

Bufo viridis Laurenti, 1768

Civan, ARTVİN, 06-V-1988; Çermik S, DİYAR-BAKIR, 850 m, 26-V-1993; Gönderme, VAN, 2000 m, 28-V-1993; Hadim, KONYA, 1600 m, 18-V-1993, PC 11T011-016; Iğdır S (NW slope of Büyük Ağrı Dağı), KARS (now IĞDIR), 1500 m, 11-V-1987,

PC T118-T119; İzettin, ANKARA (now KIRIKKALE), 04-V-1987, PC T056-T058; Karabağçe N, ŞANLIURFA, 100 m, 26-V-1993; Karaçuha (E of Çobandede), ERZURUM, 06-V-1987, PC T094-T096; Karakurt E, KARS, 14-V-1992; Kuyuluk Köyü (12 km S of Kozan), ADANA, 100 m, 17-V-1990; Köprüköy Behirek Dağ, KIRIKKALE, 900 m, 07-VI-1993, PC 11T238-239; Sağırın, ANTALYA, 50 m, 10-V-1995, NMR 9994-00308; Taşkent 16 km S, KONYA, 1700 m, 19-V-1993, PC 11T028; Üçpınar S (SE of Bozkır), KONYA, 1300 m, 31-VIII-1994; Yüksekova, HAKKÂRİ, 11-V-1989

Hyla arborea arborea (Linnaeus, 1785)

Dalca (S of Kandıra), KOCAELİ, 180 m, 09-VI-1993, tadpoles; Emet 25 km SW, KÜTAHYA, 1100 m, 09-V-1995, NMR 9994-00310, PC 13T031-033; Hopa E, ARTVİN, 200 m, 23-V-1987, PC T315; Kapıkule, EDİRNE, 05-V-1991

Comment: Tarkhnišwili & Thiesmeier (1994) record the subspecies *schelkownikowi* from the nearby Georgian area around Batumi, which probably is identical with the Hopa population.

Hyla savignyi Audouin, 1827

Aralık NW, KARS (now İĞDIR), 24-V-1991 & 09-IX-1991, PC 9T060-064; Baykan S, SİİRT, 26-V-1993; Hassa N, GAZİANTEP, 09-V-1992, PC 10T019; Kozan 7 km SW, ADANA, 100 m, 24-V-1995

Comment: The difference of this southern species with *Hyla arborea* and the border between the ranges of both species are not clear. Animals are arranged according to their geographical locality in stead of their external morphological characters. In the collection of the Natuurmuseum Rotterdam there is one specimen from İskenderun 10 km SE, HATAY, 600 m, 09-VI-1993, leg. C.W. Moeliker & R. Vis, NMR 9994-00207.

Rana camerani Boulenger, 1886

Balık Gölü, AĞRI, 2300 m, 05-IX-1994, NMR 9994-00286; Cumaçay S, AĞRI, 1850 m, 29-V-1993, NMR 9994-00200/ JM 0001; Çamlıçatak E, ARDAHAN, 1950 m, 07-IX-1994, NMR 9994-00289, PC 12T095-12T097; Değirmenköyü (NW of Ardahan), ARDAHAN, 1950 m, 08-IX-1994; Sarıkamış S, KARS, 1950 m, 04-VIII-1989, PC 5T039-5T040 & 5T44 & 5T059

Comment: Animals mentioned above very likely belong to this species. Probably more ani-

mals of this species were found, but they are given together with *Rana macrocnemis*. Also see comment on latter species.

Rana dalmatina Bonaparte, 1840.

Dalca (S of Kandıra), KOCAELİ, 180 m, 09-VI-1993 & 15-IX-1994; Kandıra W, KOCAELİ, 03-V-1987, PC T041 & T048; Şuayipli (W of Ağva), İSTANBUL, 40 m, 08-V-1995, NMR 9994-00306, PC 13T009-011

Rana macrocnemis Boulenger, 1885

(incl. some *Rana camerani* Boulenger, 1886)

Beşagıl (N of Artvin), ARTVİN, 13-IX-1991, PC 9T084-085; Çelikhan NE, ADIYAMAN, 1400 m, 03-IX-1994, NMR 9994-00290, PC 12T091-12T094; Emet 25 km SW, KÜTAHYA, 1100 m, 09-V-1995, NMR 9994-00312, PC 13T034-035; Hopa, ARTVİN, 300 m, 17-V-1987, PC T247; Muradiye 11 km N, VAN, 1850 m, 05-IX-1994, PC 12T033-12T035; Reşadiye, BİTLİS, 1700 m, 27-V-1993, NMR 9994-00202/ JM 0003; Şavşat E, ARTVİN, 2250 m, 01-VI-1993, NMR 9994-00203/ JM 0004

Comment: The taxonomical position of the mountain frogs in Anatolia is very complex, even after the survey of Baran & Atatür (1986). The Çelikhan specimen, from an area not mentioned by these authors, was found in a population of *Rana ridibunda*, which was abundant there. It showed a vertebral stripe, though not very distinct.

Rana ridibunda Pallas, 1771

Adana E, ADANA, 04-V-1989; Ağlı 3 km S, KASTAMONU, 1150 m, 27-V-1995; Afşar, AFYON, 1050 m, 30-VIII-1994; Akçakale, KARS, 1970 m, 01-VI-1993, PC 11T162-164; Antakya E, HATAY, 150 m, 21-V-1993; Asbua, KARS, 07-VIII-1989, PC 5T074; Aşağıkent, AĞRI, 2100 m, 06-IX-1994; Aydıncaya, GAZİANTEP, 22-V-1993; Bartın, BARTIN, 25 m, 28-V-1995; Baykan, SİİRT, 650 m, 26-V-1993; Baykan 9 km SW, SİİRT, 700 m, 04-IX-1994; Beşkonak 24 km N, ANTALYA, 500 m, 11-V-1995, PC 13T069-071; Beydilli, DENİZLİ, 820 m, 09-V-1995; Birecik, ŞANLIURFA, 300 m, 22-V-1993 & 22-V-1995; Boyalica, BURSA, 100 m, 08-VI-1993, PC 11T254-255; Cevdetiye, ADANA, 100 m, 23-V-1995; Çayırhan, ANKARA, 500 m, 07-VI-1993; Çelikhan NE, ADIYAMAN, 1400 m, 03-IX-1994; Dalca (S of Kandıra), KOCAELİ, 180 m, 09-VI-1993 & 08-V-1995; Düzce W, BOLU, 30-V-1991; Gölbaşı, ANKARA, 930 m,

26-V-1995; Gönderme, VAN, 1950 m, 28-V-1993;
 Göynük W, BOLU, 620 m, 08-VI-1993; Hassa N,
 HATAY, 22-V-1993, PC 10T017; Hassa NE, GAZİAN-
 TEP, 22-V-1992; Hopa NE, ARTVİN, 200 m,
 13-V-1991, PC 8T089-090; İzmit 14 km NE, İZMİT,
 430 m, 04-V-1992; Kapıkule, EDİRNE, 05-V-1991;
 Karaçuha (E of Çobandede), ERZURUM, 06-V-1987;
 Karakurt E, KARS, 1450-1550 m, 03-IX-1990 &
 14-V-1992 & 29-V-1993; Kars S, KARS, 30-V-1993;
 Kayapınar (Tecer Dağları), SİVAS, 1500 m,
 12-IX-1994; Kemalpaşa E, ARTVİN, 10 m, 15-V-1987;
 Kızdırbent (S of Yalakdere), KOCAELİ/ BURSA, 80 m,
 09-VI-1993; Kötek, KARS, 30-V-1993; Kozan 7 km
 SW, ADANA, 100 m, 24-V-1995; Küplü S (S of
 Bilecik), BİLECİK, 25-V-1992; Maden 8 km NW,
 ELAZIĞ, 1050 m, 03-IX-1994; Murtıçı 7 km N,
 ANTALYA, 600 m, 11-V-1995; Pamuk Çay (17 km
 SSW of Bağdere), DİYARBAKIR, 700 m, 03-IX-1994;
 Sebil, İÇEL, 1200 m, 13-V-1995; Sivas 16 km S,
 SİVAS, 1300 m, 13-IX-1994; Sivashı, UŞAK, 820 m,
 09-V-1995; Tahtaköprü, GAZİANTEP, 22-V-1993;
 Taşağıl, ANTALYA, 50 m, 10-V-1995; Tavşanlı 20 km
 SW, KÜTAHYA, 800 m, 09-V-1995; Tokat NE,
 TOKAT, 27-VIII-1990; Uzundere N, ERZURUM,
 03-VI-1993; Uzundere 11 km S, ERZURUM, 1000 m,
 10-IX-1994; Üçpınar 9 km SE (SE of Bozkır), KONYA,
 1260 m, 31-VIII-1994 & 11-V-1995; Van N, VAN,
 27-V-1993; Yapağlı (12 km NW of Dinar), AFYON,
 900 m, 09-V-1995; Yenice, İÇEL, 30 m, 02-IX-1994;
 Yeniköy (13 km E of Türkoğlu), Kahramanmaraş,
 02-IX-1994; Yeşilvadi, İSTANBUL, 50 m, 08-V-1995,
 NMR 9994-00307; Yobilen S (S of Hizan), BİTLİS,
 1200 m, 04-IX-1994

Comment: This species evidently is the most common amphibian of Turkey, but in fact consists of two sibling species with the most striking difference in the mating calls of the males. One being *Rana ridibunda* with a continental distribution, the other species being *Rana levantina* Schneider, Sinsch & Nevo, 1992, which is better called *Rana bedriagae* Camerano, 1882 (for discussions see Böhme & Wiedl 1994 and Schätti & Gasparetti 1994), with a more mediterranean distribution. The border between ranges of both species is presently unclear (Schneider et al. 1992; Böhme & Wiedl 1994), although the southwestern records (viz. the provinces Adana, Hatay etc.) belong to *Rana levantina* with a high probability.

REPTILIA

CHELONIA (TESTUDINES)

Emys orbicularis (Linnaeus, 1758)

Beydilli, DENİZLİ, 820 m, 09-V-1995, PC 13T051-055;
 Kadırlı 6 km SW, ADANA, 50 m, 24-V-1995; Kandıra
 W, KOCAELİ, 03-V-1987, PC T039-T040

Mauremys caspica (Gmelin, 1774)

Beydilli, DENİZLİ, 820 m, 09-V-1995, PC 13T048-050;
 Cevdetiye, ADANA, 100 m, 23-V-1995; Çermik, DİY-
 ARBAKIR, 25-V-1993; Kadırlı 6 km SW, ADANA,
 50 m, 24-V-1995; Kozan 7 km SW, ADANA, 100 m,
 24-V-1995; Kurtalan W, SİİRT, 19-V-1990, PC 6T058;
 Tahtaköprü, GAZİANTEP, 09-V-1992 & 22-V-1993;
 Tercan W, ERZINCAN, 06-V-1987 & 02-VIII-1989,
 PC T088-T090; Yenice, İÇEL, 30 m, 02-IX-1994

Testudo graeca Linnaeus, 1758

Afşar, AFYON, 1050 m, 30-VIII-1994; Afyon NW,
 AFYON, 25-V-1992; Afyon 12 km E, AFYON,
 25-V-1987; Akcaova 3 km E, KOCAELİ, 180 m,
 10-VI-1993 & 08-V-1995; Ak Dağ (W of Hadim),
 KONYA, 1830 m, 12-V-1995; Akdağmadeni 20 km W,
 YOZGAT, 27-VIII-1990, PC 7T005-007; Antakya E,
 HATAY, 21-V-1993; Ayaş, ANKARA, 900 m,
 07-VI-1993; Baykan 9 km SW, SİİRT, 700 m,
 04-IX-1994; Belçınar, İÇEL, 940 m, 13-V-1995; Belen,
 HATAY, 450 m, 21-V-1993, PC 11T039; Birecik, ŞAN-
 LIURFA, 22-V-1993; Çeltikçi Beli, BURDUR, 1200 m,
 10-V-1995; Çermik S, DİYARBAKIR, 850 m,
 26-V-1993, PC 11T102-103; Darboğaz, NİĞDE,
 1550 m, 24-V-1992; Emet 25 km SW, KÜTAHYA,
 1150 m, 09-V-1995, PC 13T040-043; Emirler, NİĞDE,
 1450 m, 14-V-1995; Erdemli (S of Sapanca), SAKA-
 RYA, 07-V-1991 & 31-VIII-1991; Fekte S, ADANA,
 16-V-1990; Fluk Dağ (N of Adapazarı), SAKARYA,
 190 m, 03-V-1992; Gaziantep 20 km NW, GAZİAN-
 TEP, 900 m, 23-V-1995; Gölpazarı 15 km W, BİLE-
 CİK, 08-VI-1993; Göynük W, BOLU, 08-VI-1993;
 Gümüş, NİĞDE, 1800 m, 23-V-1992, PC 10T124-127;
 Hadim, KONYA, 1600 m, 09-V-1991 & 18-V-1993;
 Hediye, KOCAELİ, 100 m, 08-V-1995; Iğdır S (NW
 slope of Büyük Ağrı Dağı), KARS (now IĞDIR),
 1500 m, 09-V-1987, PC T127; İhsanoğlu, BARTIN,
 25 m, 28-V-1995; İncirli (E of Yenişehir), BURSA,
 08-VI-1993; İzmit 14 km NE, İZMİT, 430 m,
 04-V-1992; Kandıra W, KOCAELİ, 03-V-1987;
 Karaağıl (Behirek Dağ), KIRIKKALE, 900 m,
 07-VI-1993; Karahıdır, KIRŞEHİR, 1300 m,

07-VI-1993; Karakütük, İÇEL, 17-V-1988, PC 3T209-211; Kayapınar, SİVAS, 1600 m, 20-V-1992 & 06-VI-1993; Kocabey (W of Süngütepe), GAZİANTEP, 22-V-1993; Korgun 6 km SE, ÇANKIRI, 830 m, 27-V-1995; Korgun N, ÇANKIRI, 930 m, 27-V-1995; Kozan 7 km SW, ADANA, 100 m, 25-V-1995; Kuyuluk Köyü (12 km S of Kozan), ADANA, 100 m, 17-V-1990 & 08-IX-1990, PC 7T118; Narlı S, KAHRAMANMARAŞ, 950 m, 23-V-1993; Narlıdere S, BİTLİS, 950 m, 27-V-1993; Oluklu (N of Yalakdere), KOCAELİ, 350 m, 09-VI-1993; Osmaniye S (N of Bilecik), BİLECİK, 100 m, 29-VIII-1994; Pamuk Çay (17 km SW of Bağdere), DİYARBAKIR, 700 m, 03-IX-1994; Pamukova W, SAKARYA, 02-V-1989; Patnos, AĞRI, 08-VIII-1989; Sağırın 14 km N, ANTALYA, 120 m, 11-V-1995; Sapanca, SAKARYA, 50 m, 25-V-1992 & 28-V-1995; Sebil, İÇEL, 1200 m, 13-V-1995; Siirt NW, SIİRT, 10-VIII-1989, PC 5T103; Sivahlı NW, UŞAK, 820-900 m, 09-V-1995; Şile E, İSTANBUL, 03-V-1987, PC T024-T027; Tekebeli 7 km W, ANKARA, 1070 m, 26-V-1995; Tekir S, KAHRAMANMARAŞ, 23-V-1993; Tuzlagözü E, SIİRT, 800 m, 03-IX-1994; Yüksekova 10 km W, HAKKÂRİ, 10-V-1989; Yüksekova NE, HAKKÂRİ, 2100-2500 m, 13-V-1988 & 11-V-1989 & 21-V-1990, PC 3T168-169.

Comment: This species is quite common in large parts of the country and consists of several subspecies. It was found from almost sea level up to 2500 m (Yüksekova). Hellmich (1969) recorded this species also up to 2500 m in eastern Turkey (Van area).

SAURIA (LACERTILIA)

Ablepharus kitaibelii chernovi Darewskij, 1953
Kayapınar W (Tecer Dağları), SİVAS, 1600 m, 24-V-1993, NMR 9994-00205/ JM 0006; Sarıkamış S, KARS, 1950 m, 14-V-1987, PC T215-T217

Comment: Subspecific status is uncertain, but the only animal captured and photographed in Sarıkamış had a red belly as is normal for this subspecies (Fuhn 1970; Gruber 1981). The nearby place Oltu (Eriok Köyü) is known as a locality of this subspecies (Fuhn 1970; Başoğlu & Baran 1977). The specimen from Kayapınar had a reddish belly as in ssp. *chernovi*, but also an ear opening which is characteristic for the nominate form. According to Gruber (1981) all subspecies except *chernovi* have greenish or bluish greywhite bellies. Eiselt (1976) described a large collection (32 specimens) from

Yozgat in which the males had red bellies and all had ear openings, but he listed them as ssp. *chernovi*. Baran (1980) recorded this subspecies from two villages near Kilis (Gaziantep).

Ablepharus kitaibelii kitaibelii (Bibron & Bory de St. Vincent, 1833)

Emet E, KÜTAHYA, 1050 m, 09-V-1995; Gümüş, NİĞDE, 1800 m, 23-V-1992, NMR 9994-00314; Hadim, KONYA, 1600-1800 m, 10-V-1991 & 02-IX-1991 & 18-V-1993 & 01-IX-1994, NMR 9994-00204/ JM 0005; Hierapolis (Castabela), ADANA, 150 m, 04-V-1989, PC 4T052; Ulukışla E, NİĞDE, 1800 m, 06-V-1992

Comment: The specimens from Hierapolis were not checked on subspecific characters and are here provisionally grouped under the nominate form. The specimens mentioned by Baran (1980) from Kilis, which is not far from there, were attributed to the subspecies *chernovi*.

Anguis fragilis Linnaeus, 1758

Akçaova 3 km E, KOCAELİ, 180 m, 10-VI-1993, PC 11T256-257; Civan, ARTVİN, 30-VIII-1990, PC 7T024; Erenler (N of Artvin), ARTVİN, 16-V-1991; Fluk Dağ (N of Adapazarı), SAKARYA, 190 m, 03-V-1992; Hopa NE, ARTVİN, 250 m, 22-V-1987, 19-V-1989, PC T323-T327 & 4T174; Kandıra W, KOCAELİ, 04-V-1987

Cyrtopodion kotschy (Steindachner, 1870)

Kuyuluk Köyü (12 km S of Kozan), ADANA, 100 m, 17-V-1990 & 08-IX-1990 (sight observations); Şenköy, HATAY, 08-V-1992, NMR 9994-00162

Cyrtopodion kotschy colchicus (Nikolskij, 1902)

Borçka N, ARTVİN, at river level (Çoruh), 16-IX-1987

Comment: The specimens were seen by daylight in crevices in a small natural rocky area in the wood, thus not on house walls.

Cyrtopodion spec.

Akkese (W of Viranşehir), ŞANLIURFA, 500 m, 06-V-1989, PC 4T082, sight observations, probably *C. kotschy*.

Eremias trauchi trauchi Kessler, 1878

İğdir S (NW slope of Büyük Ağrı Dağı), KARS (now İĞDIR), 1000 m, 03-IX-1990; Karakurt E, KARS, 1550 m, 03-VIII-1989

Eremias suphani Başoğlu & Hellmich, 1968
Tepedam, VAN, 12-V-1988, PC 3T141-145

Eumeces pavimentatus (Geoffroy, 1827)
Birecik, ŞANLIURFA, 22-V-1993

Lacerta agilis brevicaudata Peters, 1958
Akçakale, KARS, 1970 m, 25-V-1991 & 01-VI-1993;
Asbua, KARS, 1900 m, 08-VIII-1989, PC 5T064 &
5T065; Çamlıçatak (E of Ardahan), ARDAHAN,
1800 m, 01-VI-1993, PC 11T169-170; Çanaksu, KARS,
2000 m, 25-V-1991 & 15-V-1992 & 31-V-1993; Çıldır,
KARS, 2000 m, 15-V-1992; Sarıkamış S, KARS,
1950 m, 13-V-1987 & 05-VIII-1989 & 06-IX-1994,
PC T220-T221 & T223 & 12T050-12T053

Lacerta agilis grusinica Peters, 1960
Hopa NE, ARTVİN, 350 m, 19-V-1989, (Fig.3) PC
4T183-187



Figure 3 *Lacerta agilis grusinica*, Hopa NE, ARTVİN, 350 m, 19-V-1989, PC 4T183 [photogr. J. Mulder]

Lacerta cappadocica Werner, 1902
Baykan NE, SİİRT, 700 m, 27-V-1993; Baykan S,
SİİRT, 750 m, 04-IX-1994; Yolbilen S (S of Hizan),
BİTLİS, 1200 m, 04-IX-1994; Çelikhane NE,
ADİYAMAN, 1400 m, 03-IX-1994; Hassa N, HATAY,
22-V-1993, PC 11T054-056; Narlı S, border of KAHR-
MANMARAŞ/ GAZİANTEP, 950 m, 23-V-1993,
PC 11T070-071; Tekir S, KAHRAMANMARAŞ,
23-V-1993, (sight observation).

Comment: The Hassa population was living on volcanic rocks and animals were frequently seen

feeding on slugs. The coloration of all specimens seen at that location consist of several rows of small greenish yellow round spots on a very dark ground colour.

Lacerta danfordi danfordi (Günther, 1876)
Bolkar Dağları, NİĞDE, 03-V-1989; Emirler, NİĞDE,
1450 m, 14-V-1995; Sebil, İÇEL, 1200 m, 13-V-1995;
Gümüş, NİĞDE, 23-V-1992; Kargıcak, İÇEL, 300 m,
20-V-1993

Lacerta danfordi bileki Eiselt & Schmidtler, 1986

Hadım W, KONYA, 1600-1800 m, 10-V-1991 &
18-V-1993 & 01-IX-1994, PC 11T008-009; Üçpınar S
(SE of Bozkır), KONYA, 1300 m, 31-VIII-1994;
Uğurlu, KONYA, 1600 m, 19-V-1993; Yeniköy
(SW of Belören), KONYA, 08-V-1991

Lacerta derjugini barani Bischoff, 1982
Hopa NE, ARTVİN, 250-350 m, 22-V-1987 &
19-V-1989, PC 4T189; Yeşilköy (N of Borçka),
ARTVİN, 750 m, 09-IX-1994

Lacerta laevis laevis Gray, 1838
Kozan 7 km SW, ADANA, 100 m, 11-V-1991 &
24-V-1995, PC 8T070-071; Konacık, HATAY,
20-V-1993

Comment: Animals seen at Konacık had red bellies and lower jaws, while animals seen in the neighbourhood of Kozan showed yellow (caudal part) to orange (rostral part) bellies and bluish shin scales.

Lacerta media ciliciensis Schmidtler, 1975
Emirler, NİĞDE, 1450 m, 14-V-1995; Gümüş, NİĞDE,
1800 m, 23-V-1992; Kurtçukuru, İÇEL, 500 m,
13-V-1995; Sebil, İÇEL, 1200 m, 13-V-1995

Lacerta media isaurica Schmidtler, 1975
Ak Dağ (W of Hadım), KONYA, 1830 m, 12-V-1995;
Hadım, KONYA, 1600 m. 02-IX-1991 & 19-V-1993 &
31-VIII-1994

Lacerta media media Lantz & Cyrén, 1920
Akdağmadeni 20 km W, YOZGAT, 27-VIII-1990;
Alpköy 6 km NE (E of Kemah), ERZİNCAN, 1200 m,
11-IX-1994; Birecik S, ŞANLIURFA, 300 m,
23-V-1995; Borçka N, ARTVİN, 850 m, 02-VI-1993;
Cumaçay NE, AĞRI, 2100 m, 29-V-1993 &

06-IX-1994; Çetenli SW (NE slope of Tendürek Dağı), AĞRI, 2000-2050 m, 29-V-1993, PC 11T123-126; Erenler (N of Artvin), ARTVİN, 16-V-1991 & 13-IX-1991; Fındıkbel Geçidi (W of Şiran), border of GÜMÜŞHANE/ GİRESUN, 1650 m, 04-VI-1993; Gedikbaşı SW (NE of Divriği), SİVAS, 1700 m, 11-IX-1994; Gönderme, VAN, 2000 m, 28-V-1993; Kayabaşı, ERZURUM, 18-V-1992; Kayapınar, SİVAS, 1600 m, 06-VI-1993; Kösedag (N of Zara), SİVAS, 1550 m, 28-V-1991; Kuskunkıran Geçidi, border of BİTLİS/ VAN, 2100 m, 27-V-1993, PC 11T114; Reşadiye, BİTLİS, 1700 m, 27-V-1993; Sivas S, SİVAS, 1350 m, 06-VI-1993; Sümbüllü (N of Artvin), ARTVİN, 14-IX-1991; Şiran E, GÜMÜŞHANE, 1500 m, 04-VI-1993, PC 11T198-200; Tepedam, VAN, 12-V-1988, PC 3T149; Yüksekova NE, HAKKÂRİ, 2100-2300 m, 12-V-1988 & 11-V-1989 & 21-V-1990, PC 6T122

Lacerta media wolterstorffi Mertens, 1922

Antakya E, HATAY, 150 m, 21-V-1993, PC 11T046-047

Lacerta oertzeni ibrahimi Eiselt & Schmidtler, 1986

Taşagül N, ANTALYA, 100 m, 30-VIII-1994

Lacerta oertzeni budaki Eiselt & Schmidtler, 1986

Kohu Dağ N (S of Elmalı), ANTALYA, 1650 m, 10-IX-1990

Lacerta pamphylica Schmidtler, 1975

Taşagül 6 km N, ANTALYA, 50, 10-V-1995

Lacerta parva Boulenger, 1887

Belcik, SİVAS, 1200 m, 05-V-1987, PC T062-T064; Fındıkbel Geçidi (W of Şiran), border of GÜMÜŞHANE/GİRESUN, 1650 m, 04-VI-1993, PC 11T209; Kayapınar E (Tecer Dağları), SİVAS, 1500-1600 m, 13-IX-1994; Kızbeli Geçidi, SİVAS, 1500 m, 19-V-1992; Köse Dağ (N of Zara), SİVAS, 1550 m, 22-V-1989 & 05-VI-1993; Sivas S, SİVAS, 1250 m, 13-IX-1994, PC 12T079

Comment: *Lacerta parva* and *Ophisops elegans*, which have slightly comparable ecological needs, were never found together although the distance from Fındıkbel Geçidi (1650 m) to Belen (1300 m), a locality of the latter species, is only 17 km.

Lacerta parvula adjarica Darevsky & Eiselt, 1982

Borçka N, ARTVİN, 16-IX-1987 & 06-V-1988 & 02-VI-1993, 09-IX-1994; Hopa NE, Artvin, 100-250 m, 22-V-1987, PC T246

Lacerta rudis bischoffi Böhme & Budak, 1977

Hopa, ARTVİN, 10-200 m, 18-V-1987 & 14-IX-1991, PC T289 & 9T099-100; Borçka, ARTVİN, 450 m, 02-VI-1993, PC 11T188-192; Kemalpaşa E, ARTVİN, 10 m, 15-V-1987, PC T253; Yeşilköy (N of Borçka), ARTVİN, 750 m, 09-IX-1994

Lacerta rudis rudis Bedriaga, 1886

Yomra, TRABZON, 0 m, 28-VIII-1990

Comment: The specimens were seen along the splash-line of the Black Sea coastal rocks.

Lacerta cf. rudis Bedriaga, 1886

Ağlı, 3 km SE, KASTAMONU, 1150 m, 27-V-1995, NMR 9994-00318, PC 13T193-194; Akarsu (W of Refahiye), ERZİNCAN, 17-IX-1991, PC 9T112-117; Alucra W, GİRESUN, 1450 m, 04-VI-1993, PC 11T212-215; Cide 22 km W, KASTAMONU, 50 m, 28-V-1995; İlgaz Dağı Geçidi 2 km N, KASTAMONU, 1750 m, 27-V-1995; Kayapınar W, SİVAS, 1600 m, 20-V-1992 & 25-V-1993, NMR 9994-00299, PC 11T083-085; Köse Dağ (N of Zara), SİVAS, 1550 m, 22-V-1989 & 31-V-1990 & 05-VI-1993, PC 4T207-214; Sivas S, SİVAS, 1350 m, 06-VI-1993; Şavşat E (W of Çam Geçidi), ARTVİN, 1900-2300 m, 30-VIII-1990 & 12-IX-1991 & 15-V-1992 & 01-VI-1993, NMR 9994-00300, PC 11T177-181; Şiran E, GÜMÜŞHANE, 1500 m, 04-VI-1993, PC 11T196-197

Lacerta strigata Eichwald, 1831

Aralık NW, KARS (now İĞDIR), 850 m, 24-V-1991 & 09-IX-1991

Lacerta trilineata galatiensis Peters, 1964

Afşar, AFYON, 1050 m, 30-VIII-1994; Ayaş, ANKARA, 900 m, 07-VI-1993, PC 11T241-242; Beycik, ANKARA, 940 m, 08-VI-1993; Emet 25 km SW, KÜTAHYA, 1100 m, 09-V-1995, NMR 9994-00317, PC 13T038-039; Göynük W, BOLU, 620 m, 08-VI-1993; Karaağıl (Behirek Dağ), KIRIKKALE, 900 m, 07-VI-1993; Korgun 6 km SE, ÇANKIRI, 830 m, 27-V-1995; Kurtboğazı Baraj (N of Ankara), ANKARA, 01-IX-1991; Sivaslı 7 km NW, UŞAK, 820 m, 09-V-1995; Yarıhisar E (NW of Bilecik), BİLECİK, 400 m, 08-VI-1993 (sight observation)

Lacerta valentini valentini Boettger, 1892

Akçakale, KARS, 1970 m, 25-V-1991 & 01-VI-1993, PC 11T159-161; Çanaksu, KARS, 2000 m, 25-V-1991 & 15-V-1992 & 01-VI-1993; Cumaçay NE, AĞRI, 2100 m, 29-V-1993 & 06-IX-1994, NMR 9994-00298, PC 11T128-135

Lacerta viridis meridionalis Cyrén, 1933

Akçaova 3 km E, KOCAELİ, 180 m, 09-VI-1993 & 15-IX-1994 & 08-V-1995, PC 12T084-12T087; Dalca (S of Kandıra), KOCAELİ, 180 m, 02-V-1992 & 10-VI-1993 & 15-IX-1994 & 08-V-1995, PC 11T252-253; Düzce W, BOLU, 30-V-1991; Erdemli (S of Sapanca), SAKARYA, 06-V-1991; Fluk Dağ (N of Adapazarı), SAKARYA, 190 m, 03-V-1992; İzmit 14 km NE, İZMİR, 430 m, 04-V-1992; Kandıra W, KOCAELİ, 03-V-1987, PC T044-T045; Oluklu (S of Karamürsel), BURSA/ KOCAELİ, 350 m, 09-VI-1993; Sapanca, SAKARYA, 26-V-1992, PC 10T007; Şuayipli (W of Ağva), İSTANBUL, 40 m, 08-V-1995; Teke, İSTANBUL, 120 m, 10-VI-1993; Ubeyli (SW of Ağva) İSTANBUL, 50 m, 10-VI-1993

Lacerta viridis paphlagonica Schmidtler, 1986

Cide S, KASTAMONU, 500 m, 27-V-1995

Laudakia caucasica (Eichwald, 1831)

Çetenli SW (NE slope of Tendürek Dağı), AĞRI, 2100 m, 29-V-1993, NMR 9994-00244/ JM 0040, PC 11T120-122; Iğdır S (NW slope of Büyük Ağrı Dağı), KARS (now İÇDIR), 1400-2000 m, 07-V-1987 & 11-IX-1987 & 08-IX-1991, PC T112 & T150 & 9T055-058

Laudakia stellio (Linnaeus, 1758)

Adana, ADANA, 190 m, 24-V-1995; Amasya, AMASYA, 19-IX-1987; Andırın S, KAHRAMANMARAŞ, 11-V-1991; Antakya E, HATAY, 150 m, 21-V-1993; Belçinar, İÇEL, 940 m, 13-V-1995; Belen, HATAY, 450 m, 21-V-1993; Birecik, ŞANLIURFA, 22-V-1993; Birecik S, ŞANLIURFA, 300 m, 23-V-1995; Cevdetiye, ADANA, 100 m, 23-V-1995; Çeltikçi Beli, BURDUR, 1200 m, 10-V-1995; Emirler, NIĞDE, 1450 m, 14-V-1995; Gaziantep E, GAZİANTEP, 900 m, 22-V-1993 & 23-V-1995; Gümüş, NIĞDE, 1800 m, 23-V-1992; Hadim, KONYA, 1600 m, 09-V-1991 & 18-V-1993; Hassa N, HATAY, 22-V-1993; Hierapolis 4 km N, ADANA, 170 m, 24-V-1995; Kaledran W, ANTALYA, 10 m, 12-V-1995; Karabıyıklı S (S of Narlı), KAHRAMANMARAŞ, 950 m, 23-V-1993;

Karakütük, İÇEL, 17-V-1988; Kargıcak, İÇEL, 300 m, 20-V-1993; Kuyuluk Köyü (12 km S of Kozan), ADANA, 100 m, 17-V-1990 & 08-IX-1990 & 04-IX-1991; Kurtçukuru, İÇEL, 500 m, 13-V-1995; Kuruçay 5 km O, KONYA, 1260 m, 11-V-1995; Murtiçi 7 km N, ANTALYA, 600 m, 11-V-1995, NMR 9994-00313; Sağırin, ANTALYA, 40 m, 11-V-1995; Sebil, İÇEL, 1200 m, 13-V-1995; Selçuk 25 km S, İZMİR, 26-V-1987, PC T359; Siirt S, SİİRT, 600 m, 08-V-1989 (sight observation); Süngütepe-Kilis-Elbeyli, GAZİANTEP, 22-V-1993; Tekir S, KAHRAMANMARAŞ, 23-V-1993; Ulukışla E, NIĞDE, 1800 m, 03-V-1989 & 06-V-1992; Üçpınar 11 km SE, KONYA, 1260 m, 11-V-1995

Laudakia stellio or *L. caucasica* (determination uncertain)

Narlıdere S, BİTLİS, 950 m, 27-V-1993 (far distance sight observation)

Comment: Hellmich (1969) recorded *L. stellio* instead of *L. caucasica* from the Bitlis region. Baran et al. (1989) drew the border between both species in this area.

Mabuya aurata aurata (Linnaeus, 1758)

Boyalıca, BURSA, 100 m, 09-VI-1993; Çayırhan, ANKARA, 500 m, 08-VI-1993; Çermik S, DİYARBAKIR, 850 m, 26-V-1993, PC 11T105; Dağ, ANTALYA, 750 m, 10-V-1995; Iğdır S (NW slope of Büyük Ağrı Dağı), KARS (now İÇDIR), 1550-1700 m, 07-V-1987 & 23-V-1990 & 13-V-1992, PC T145-T147; İnegöl 10 km N, BURSA, 240 m, 08-V-1995, NMR 9994-00315, PC 13T059; Karabağçe N, ŞANLIURFA, 100 m, 26-V-1993; Karabıyıklı S (S of Narlı), KAHRAMANMARAŞ, 950 m, 23-V-1993; Kargıcak, İÇEL, 300 m, 20-V-1993; Köprüköy (Behirek Dağ), KIRIKKALE, 900 m, 07-VI-1993, PC 11T235; Tekir S, KAHRAMANMARAŞ, 23-V-1993; Ulukışla E, NIĞDE, 1800 m, 03-V-1989, PC 4T039; Yüksekova NE, HAKKÂRİ, 2100-2500 m, 13-V-1988 & 11-V-1989 & 21-V-1990, PC 6T124-126

Mabuya vittata Olivier, 1804

Adana NE, ADANA, 190 m, 24-V-1995; Akkese (W of Viranşehir), ŞANLIURFA, 500 m, 06-V-1989, PC 4T072-4T073; Altınözü S, HATAY, 21-V-1993; Belen, HATAY, 450 m, 21-V-1993; Bulgurluk (S of Erdemli), SIVAS, 06-V-1987, PC T084-T086; Hierapolis (Castabela), ADANA, 150 m, 04-V-1989, PC 4T054-055; İmranlı E, SIVAS, 1700 m, 08-IX-1987;

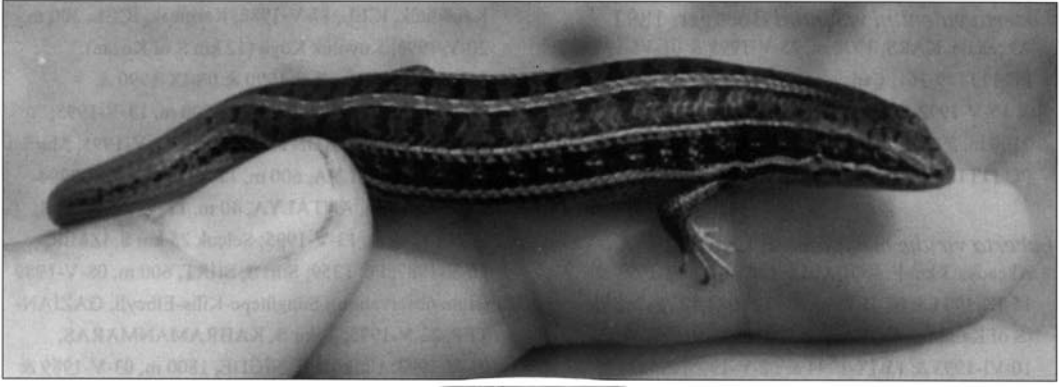


Figure 4 *Mabuya vittata*, Kayapınar W, (Tecer Dağları), SIVAS, 1600 m, 24-V-1993, PC 11T082 [photogr. J. Mulder]

Tokmaklı N, KAHRAMANMARAŞ, 11-V-1991; Kösedag (N of Zara), SIVAS, 1550 m, 22-V-1989 & 28-V-1991 & 05-VI-1993, PC 4T206 & 4T215-221; Mısıroren E, SIVAS, 20-V-1992; Sebil, İÇEL, 1200 m, 13-V-1995, NMR 9994-00316, PC 13T097; Siverek 15 km SW, ŞANLIURFA, 10-V-1992; Şerefiye, SIVAS, 1550 m, 21-V-1989; Şiran E, GÜMÜŞHANE, 1500 m, 04-VI-1993, NMR 9994-00234/ JM 0031, PC 11T195 & 11T202-205; Kayapınar W (Tecer Dağları), SIVAS, 1600 m, 20-V-1992 & 24-V-1993 (Fig. 4), NMR 9994-00235/ JM 0032, PC 11T081-082

Comment: The animals seen at several localities in the province of Sivas were never mentioned before and considerably enlarge the known range of this species. The species though has been mentioned before from other relatively northern places like Sabuncupınar, KÜTAHYA (Başoğlu & Baran 1977), in the West and Sakaltutan Geçidi, West of Erzincan, ERZINCAN, 2100 m, 23-VI-1990 (Bischoff & Franzen 1993), in the East.

Ophisaurus apodus apodus (Pallas, 1775)

İğdir S (NW slope of Büyük Ağrı Dağı), KARS (now İĞDIR), 1500-1700 m, 08-V-1987 & 23-V-1990 & 12-V-1992, PC T136-T137 & T188 & T190, 10T049-052

Ophisaurus apodus thracicus Obst, 1978

Adana 20 km NE, ADANA, 11-V-1991; Hierapolis 4 km N, ADANA, 170 m, 24-V-1995; Kaynarca W, KOCAELİ, 03-V-1992; Selçuk 25 km S, AYDIN, 19-V-1988

Ophisops elegans elegans Ménétriés, 1832

İğdir S (NW slope of Büyük Ağrı Dağı), KARS (now İğdir), 1400-1700 m, 07-V-1987 & 13-V-1992, PC T115; Tuzluca 20 km N, KARS (now İğdir), 24-V-1991

Ophisops elegans Ménétriés, 1832

Adana NE, ADANA, 190 m, 24-V-1995; Akdağmadeni 20 km W, YOZGAT, 27-VIII-1990; Alpköy 6 km W (E of Kemah), ERZİNCAN, 1200 m, 11-IX-1994; Altunözü S, HATAY, 21-V-1993; Antakya E, HATAY, 150 m, 21-V-1993; Arı, GAZİANTEP 700 m, 23-V-1993, PC 11T067; Ayaş, ANKARA, 900 m, 07-VI-1993; Bahçe 12 km W, ADANA, 500 m, 23-V-1995; Bağırkurt (N of Konya), KONYA, 1200 m, 17-V-1993, PC 11T002-003; Bakırdağı E, KAYSERİ, 16-V-1990; Baykan 10 km SW, SİİRT, 700 m, 04-IX-1994; Belen (13 km W of Şiran), GİRESUN, 1300 m, 04-VI-1993; Beşkonak 24 km N, ANTALYA, 500 m, 11-V-1995; Beycik, ANKARA, 950 m, 08-VI-1993; Çelikhane NE, ADIYAMAN, 1400 m, 03-IX-1994; Çolaklı W, MALATYA, 1050 m, 03-IX-1994; Emirler, NİĞDE, 1450 m, 14-V-1995; Gaziantep 20 km NW, GAZİANTEP, 900 m, 23-V-1995, NMR 9994-00320; Gölpazarı W, BİLECİK, 580 m, 08-VI-1993; Göreme, NEVŞEHİR, 16-V-1990; Göynük W, BOLU, 620 m, 08-VI-1993; Gümüş, NİĞDE, 1800 m, 23-V-1992; Hadim, KONYA, 1600 m, 19-V-1993 & 01-IX-1994; Harran, ŞANLIURFA, 300 m, 22-V-1995; Hizan NW, BİTLİS, 1850 m, 04-IX-1994; İliç, ERZİNCAN, 1000 m, 11-IX-1994; Karaağıl (Behirek Dağı), KIRIKKALE, 900 m, 07-VI-1993; Karahıdır, KIRŞEHİR, 1300 m, 07-VI-1993, PC 11T232-234; Karakurt 25 km W, KARS, 07-V-1987, PC T097-T099; Kargıcak, İÇEL, 300 m, 20-V-1993; Kemah W, ERZİNCAN, 1500 m, 11-IX-1994; Kemah 13 km W, ERZİNCAN, 1200 m, 11-IX-1994; Kirobası 11 km SE, İÇEL, 1400 m, 02-IX-1994; Köprüköy (Behirek Dağı), KIRIKKALE, 900 m, 07-VI-1993, PC 11T237; Korgun 6 km SE, ÇANKIRI, 830 m, 27-V-1995; Kurtçukuru, İÇEL, 500 m, 13-V-1995; Muradiye 11 km N, VAN, 1850 m, 05-IX-1994; Narlı S, border of KAHRAMANMARAŞ/

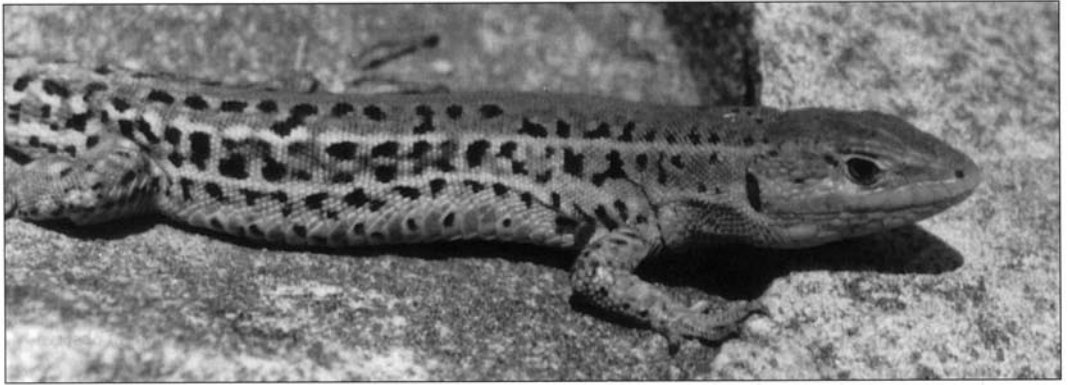


Figure 5 *Podarcis taurica taurica*, Akçaova 3 km E, KOCAELİ, 180 m, 08-V-1995, PC 13T019 [photogr. J. Mulder]

GAZİANTEP, 950 m, 23-V-1993; Sağırin, ANTALYA, 150 m, 31-VIII-1994; Sebil, İÇEL, 1200 m, 13-V-1995; Sızır 6 km W, SİVAS, 1500 m, 13-IX-1994; Siverek 15 km SW, ŞANLIURFA, 10-V-1992; Şaphane S, KÜ-TAHYA, 800 m, 09-V-1995; Şereflikoçhisar, ANKARA, 900 m, 16-V-1990; Şiran 11 km E, GÜ-MÜŞHANE, 1500 m, 04-VI-1993; Taşağıl N, AN-TALYA, 150 m, 30-VIII-1994; Tekir S, KAHRAMANMA-RAŞ, 23-V-1993; Ulukışla E, NİĞDE, 1800 m, 03-V-1989 & 06-V-1992; Üçpınar S (SE of Bozkır), KONYA, 1300 m, 31-VIII-1994; Yenice, İÇEL, 30 m, 02-IX-1994; Yusufeli SW, ARTVİN, 15-V-1991; Yüksekova NE, HAKKÂRİ, 2100-2500 m, 11-V-1989.

Comment: This species seems to have the widest distribution of all in Turkey. It was found from sea level up to 1850 m altitude. Especially in the higher altitudes it lives in dry areas with sparse vegetation. Subspecific identity of above mentioned animals is not easy to establish, as contradicting information has been published on this issue and the species is very polymorphic.

Phrynocephalus helioscopus persicus de Filippi, 1862

Tuzluca E, İĞDIR, 09-IX-1991 & 13-V-1992, PC 9T073-077.

Comment: Baran et al. (1989) mention the relatively western and mountainous locality 'Taşburun Köyü near Kağızman', which is probably wrongly cited and should be 'Taşburun Köyü near İğdır' (Baran 1980). The Tuzluca locality fits perfectly into the limited range of well-known places around İğdır (Devlet Üretim Çiftliği: Baran et al. 1989; 10 km S of İğdır: Clark & Clark 1973; Başköy near İğdır: Mertens 1952), Aralık, ca. 40 km. E. of

İğdır (Méhely 1894; Ananjewa 1981) and close surroundings of the city Doğubeyazıt (Clark & Clark 1973; Daszak & Cawthraw 1991). The animals were found on a flat surface of sun-baked earth with sparse vegetation and small rounded stones scattered all over it. Probably this was an old river-bed of the displaced but still nearby river Aras.

Podarcis muralis albanica (Bolkay, 1919)

Akçaova 3 km E, KOCAELİ, 180 m, 10-VI-1993, PC 11T258-260; Dalca (S of Kandıra), KOCAELİ, 180 m, 09-VI-1993 & 15-IX-1994 & 08-V-1995; Erdemli (S of Sapanca), SAKARYA, 06-V-1991; Fluk Dağ (N of Adapazarı), SAKARYA, 190 m, 02-V-1992; Kandıra W, KOCAELİ, 03-V-1987

Podarcis taurica taurica (Pallas, 1814)

Akçaova 3 km E, KOCAELİ, 180 m, 10-VI-1993 & 15-IX-1994 & 08-V-1995 (Fig. 5), PC 12T088-12T090 & 13T015-024; Dalca (S of Kandıra), KOCAELİ, 180 m, 09-VI-1993, PC 11T246249; Gebze N, KOCAELİ, 15-IX-1994

AMPHISBAENIA

Blanus strauchi aporus (Bedriaga, 1884)

Çermik S, DİYARBAKIR, 850 m, 26-V-1993; Siverek 15 km SW, ŞANLIURFA, 10-V-1992, PC 10T023-026

Comment: Specimens were only found by turning stones upside down.

SERPENTES

Coluber caspius (Gmelin, 1789)

Akçaova 3 km E, KOCAELİ, 180 m, 08-V-1995; Bilecik NW, BİLECİK, 400 m, 08-VI-1993; Fluk Dağ

(N of Adapazarı), SAKARYA, 190 m, 03-V-1992; Kandıra W, KOCAELİ, 03-V-1987, PC T170-T171; Kayıplar, KOCAELİ, 270 m, 09-VI-1993; *Köse Dağ* (N of Zara), SİVAS, 1550 m, 05-VI-1993, PC 11T222-226; Selçuk 15 km S, İZMİR, 19-V-1988; Sümbüllü, ARTVİN, 14-IX-1991, PC 9T094-096

Comment: Recently Schätti (1988) introduced the generic name *Hierophis* for some *Coluber* species, viz. *caspicus*, *jugularis* and *schmidti*. This is not generally accepted (see Leviton et al. 1992: 88) and the author refrains from placing those species in a different genus before this is widely accepted.

Coluber caspius or *C. schmidti* (determination uncertain)

Kayapınar W (*Tecer Dağları*), SİVAS, 1500 m, 25-V-1993 & 06-VI-1993, NMR 9994-00236/ JM 0033, PC 11T098-101 & 11T227; Tokat NE, TOKAT, 27-VIII-1990

Coluber jugularis Linnaeus, 1758

Akkese (W of Viranşehir), ŞANLIURFA, 500 m, 06-V-1989, PC 4T087; Altındağ, GAZİANTEP, 700 m, 23-V-1993; Antakya E, HATAY, 150 m, 21-V-1993, PC 11T048-053; Aydıncaya, GAZİANTEP, 22-V-1993; between Dar Boğaz and Gümüş (*Bolkar Dağları*), NİĞDE, 24-V-1992, PC 10T133-138; Cevdetiye, ADANA, 100 m, 23-V-1995; Selçuk 25 km S, İZMİR, 26-V-1987, PC T396 & T400; Tekir S, KAHRAMAN-MARAŞ, 23-V-1993 (detailed description of 'Karayılan' by local shepherds)

Coluber najadum (Eichwald, 1831)

Ak Dağ (W of Hadim), KONYA, 1830 m, 12-V-1995, PC 13T087-091; Civan, ARTVİN, 07-V-1988; Emirler, NİĞDE, 1450 m, 14-V-1995, PC 13T100-105; Hadim, KONYA, 1600 m, 09-V-1991 & 18-V-1993, PC 8T063-064; İğdir S (NW of *Büyük Ağrı Dağı*), KARS (now İĞDIR), 1600-1700 m, 11-V-1987 & 23-V-1991 & 13-V-1992, PC T154 & 8T130 & 8T134; Sebil, İÇEL, 1200 m, 13-V-1995; Selçuk 15 km S, AYDIN, 27-V-1987, PC T387 & T389; Süngütepe 5 km E, (W of Kilis), GAZİANTEP, 22-V-1993, NMR 9994-00211/ JM 0009, PC 11T060; Uğurlu, KONYA, 1600 m, 01-IX-1994, PC 12T012; Uzundere S, ERZURUM, 13-IX-1987, PC 2T060-065

Comment: The Süngütepe specimen was found very close to the border of Syria, from which it was not recorded until then. It was recently

found in Syria (Bischoff & Schmidler 1994). This whip snake seems to be very variable in Turkey and some animals show characteristics of the related species *C. rubriceps*.

Coluber najadum or *C. rubriceps* (determination uncertain)

Akçaova 3 km E, KOCAELİ, 180 m, 10-VI-1993, NMR 9994-00220/ JM 0018 mummified dead specimen; Kargıcak, İÇEL, 300 m, 20-V-1993 (sight observation); Sağırın, ANTALYA, 50 m, 10-V-1995 (sight observation)

Comment: The author never found animals that look like normal *C. rubriceps*, with the combination of the following characteristics: a reddish-brown head ending in a transverse dark band in the neck; a dark stripe along each side of the head, extending from the nasal towards the end of the mouth; no whitish spots before and after the eye, and small 'eye spots' on each side of the body, far from each other and extending onto the middle of the body (see for example Gruber 1989). Animals were found though with just one of the next characteristics: reddish-brown head, transverse band in the neck and 'eye spots' extending far on the body. The situation is very complex and certainly needs further study.

Coluber nummifer Reuss, 1834

Hassa N, HATAY, 22-V-1993, NMR 9994-00214/ JM0011 (sloughed skin); Kuyuluk Köyü (12 km S of Kozan), ADANA, 100 m, 17-V-1990, PC 6T031-032

Coluber ravergieri Ménétrié, 1832

İğdir S (NW & W slope of *Büyük Ağrı Dağı*), KARS (now İĞDIR), 1500-2000 m, 08-V-1987 & 11-IX-1987, 07-IX-1991 & 12-V-1992, PC T161-T164 & 9T101-104 & 10T043-048 & 10T053-054; Karakurt E, KARS, 1550 m, 27-V-1990 & 30-V-1993, PC 11T141; Kayapınar W (*Tecer Dağları*), SİVAS, 1600 m, 20-V-1992 & 06-VI-1993 (sight observation); Timar, VAN, 1650 m, 12-V-1989; Uzundere S, ERZURUM, 13-IX-1987; Yüksekova NE, HAKKÂRİ, 2100-2500 m, 13-V-1988 & 11-V-1989 & 21-V-1990, PC 4T150-154 & 6T116

Comment: The author has been bitten several times by this species without any sign of envenomation, as has been recorded by Mamonov (1977).

Coluber schmidti (Nikolskij, 1909)

Iğdır S (NW slope of *Büyük Ağrı Dağı*), KARS
(now IĞDIR), 1700 m, 12-V-1987

Coronella austriaca austriaca Laurenti, 1768

Asbua, KARS, 26-V-1990, PC 6T165-167; Çanaksu,
KARS, 200 m, 25-V-1991 & 15-V-1992; Hopa NE,
ARTVİN, 200 m, 06-V-1988, PC 3T096; *Köse Dağ*
(N of Zara), SİVAS, 1550 m, 17-IX-1991, PC 9T118-
122; Sarıkamış S, KARS, 1950 m, 31-VIII-1990

Eirenis collaris collaris (Ménétriés, 1832)

Iğdır S (NW slope of *Büyük Ağrı Dağı*), KARS
(now IĞDIR), 23-V-1990, PC 6T158-6T160

Eirenis eiselti Schmidtler & Schmidtler, 1978

Siverek N, ŞANLIURFA, 800 m, 26-V-1993, NMR
9994-00251, PC 11T108

Eirenis modestus (Martin, 1838)

Beşkonak 18 km N, ANTALYA, 350 m, 10-V-1995,
NMR 9994-00321; Selçuk 25 km S, İZMİR, 26-V-1987,
PC T384-T385

Eirenis punctatolineatus (Boettger, 1892)

Karakurt E, KARS, 1550 m, 30-V-1993, NMR 9994-
00221/ JM0019, PC 11T142-145

Eirenis spec.

Tekir S, KAHRAMANMARAŞ, 23-V-1993,
NMR 9994-00231/ JM 0028, PC 11T072-079

Comment: This specimen has recently been examined by Dr. J.F. Schmidtler. It probably represents a new taxon (Schmidtler in litt. 1994).

Elaphe hohenackeri (Strauch, 1873)

Iğdır S (NW slope of *Büyük Ağrı Dağı*), KARS (now
IĞDIR), 1700 m, 13-V-1992, PC 10T056-058; Karakurt
E, KARS, 1600 m, 21-V-1991; Yüksekova NE, HAK-
KÂRİ, 2300 m, 21-V-1990, PC 6T118

Comment: All specimens were of the '*hohenackeri*' (viz. not '*taurica*') type.

Elaphe longissima longissima (Laurenti, 1768)

Hopa NE, ARTVİN, 350 m, 06-V-1988; Kandıra W,
KOCAELİ, 03-V-1987, PC T047

Elaphe quatuorlineata sauromates (Pallas, 1814)

Hadim, KONYA, 1650 m, 19-V-1993, PC 11T021-023;
Pash, KARS, 1900 m, 15-V-1989; Taşkent, KONYA,
19-V-1993; Selçuk 15 km S, İZMİR, 27-V-1987

Leptotyphlops macrorhynchus (Jan, 1862)

Siirt S, SİİRT, 380 m, 08-V-1989, PC 4T115-118

Comment: This species, known from only a few localities in Turkey (Başoğlu & Baran 1980), was discovered under stones in ant and termite colonies. The species was found for the first time in Turkey in May 1967 by Clark and Clark (1973). This study confirms their observation that the animals are found only when the soil is damp and that two or three specimens are found together under the same stone. Repeated visits at the same place and time of the year but under drier conditions gave no results. In the same area (Siirt/ Eruh), Teynié (1987) found *Typhlops vermicularis* and *Blanus strauchi*. These reptiles are a bit comparable in that they are small, live under stones and eat small arthropods.

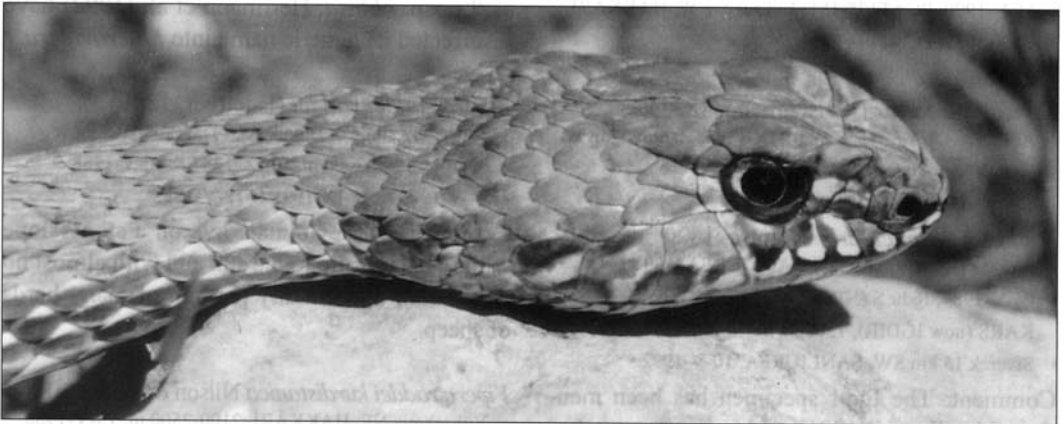


Figure 6 *Malpolon monspessulanus insignitus*, Murtiçi 7 km N, ANTALYA, 600 m, 11-V-1995, PC 13T076 [photogr. J. Mulder]

Malpolon monspessulanus insignitus (Geoffroy St. Hilaire, 1827)

Hakkıbeyli, ADANA, 180 m, 24-V-1995; Iğdır S (NW of *Büyük Ağrı Dağı*), KARS (now IĞDIR), 1000 m, 05-IX-1990, PC 7T096-098; Murtıçı 7 km N, ANTALYA, 600 m, 11-V-1995 (Fig. 6), PC 13T074-080; Siirt S, SİİRT, 600 m, 08-V-1989; Ulukışla E, NİĞDE, 03-V-1989

Natrix natrix (Linnaeus, 1758)

Kandıra W, KOCAELİ, 03-V-1987; Dalca (S of Kandıra), KOCAELİ, 180 m, 02-V-1992 & 15-IX-1994 & 08-V-1995; Gölbaşı, ANKARA, 930 m, 26-V-1995, PC 13T183-186; Hopa, ARTVİN, 200-300 m, 16-V-1987, PC T257-T264; İzmit 14 km NE, İZMİT, 430 m, 04-V-1992; Sürmene, TRABZON, 28-VIII-1990; Tütüncüler (S of Borçka), ARTVİN, 16-IX-1991; Üçpınar S (SE of Bozkır), KONYA, 1300 m, 31-VIII-1994, PC 12T009-12T010; Van 15 km NE, VAN, 11-V-1992, PC 10T036-038; Yapağlı (12 km NW of Dinar), AFYON, 900 m, 09-V-1995, PC 13T063-065

Comment: The Turkish animals are usually referred to as ssp. *persa* but animals from the Northeast (viz. the animals from Hopa and Tütüncüler) are called ssp. *scutata* by some authors (Bergman & Norström 1995; Nilson et al. 1988).

Natrix tessellata tessellata (Laurenti, 1768)

Asbua, KARS, 08-VIII-1989, PC 5T081-5T082 & 5T085; Çanaksu, KARS, 2000 m, 25-V-1991 & 15-V-1992 & 31-V-1993; Gölbaşı, ANKARA, 930 m, 26-V-1995; Gönenderme, VAN, 2000 m, 28-V-1993; Iğdır S (NW slope of *Büyük Ağrı Dağı*), KARS (now IĞDIR), 1500-1600 m, 09-V-1987, PC T172; Karakurt E, KARS, 1550 m, 03-IX-1990; Yıldızeli E, SİVAS, 31-V-1990, PC 6T178-181; Yüksekova W, HAKKÂRİ, 10-V-1989, PC 4T144-145

Telescopus fallax (Fleischmann, 1831)

Adiller, KONYA, 1550 m, 01-IX-1994; Hadim 5 km W, KONYA, 1670 m, 12-V-1995

Typhlops vermicularis Merrem, 1820

Akkese (W of Viranşehir), ŞANLIURFA, 500 m, 06-V-1989; Iğdır S (NW slope of *Büyük Ağrı Dağı*), KARS (now IĞDIR), 1500 m, 09-V-1987, PC T125; Siverek 15 km SW, ŞANLIURFA, 10-V-1992

Comment: The Iğdır specimen has been mentioned by Teynié (1991) as the easternmost record of Turkey. Its locality fits perfectly in the

normal range, as they occur directly at the other side of the nearby border in Armenia and Azerbaydzhan (Grillitsch & Grillitsch 1993).

Vipera albizona Nilson, André & Flärdh, 1990

surroundings of the *Mercan Dağları*, ERZİNCAN, 1500 m, 11-IX-1994 (sloughed skins); surroundings of the *Tecer Dağları*, SİVAS, 1600 m, 20-V-1992, 24-V-1993, NMR 9994-00213/JM 0012, PC 11T086-097

Comment: The population from the surroundings of the *Mercan Dağları* extends the known range about 100 km eastwards (also see Mulder 1994).

Vipera ammodytes transcaucasiana Boulenger, 1913

Borçka N, ARTVİN, 850 m, 01-VI-1993, PC 11T185-187; *Köse Dağ* (N of Zara), SİVAS, 1550 m, 21-V-1989 & 31-V-1990 & 05-VI-1993, 4T201-202

Comment: Some authors treat this taxon as a full species, viz. *V. transcaucasiana*, after the publication of Hermann et al. (1987).

Vipera kaznakovi Nikolskij, 1909

Hopa NE, ARTVİN, 200-350 m, 23-V-1987 & 14-IX-1987 & 06-V-1988 & 19-V-1989, PC T302-T304, 3T099-103

Vipera lebetina obtusa Dwigubskij, 1832

Iğdır S (NW slope of *Büyük Ağrı Dağı*), KARS (now IĞDIR), 1600-1700 m, 12-V-1987 & 13-V-1992

Vipera lebetina lebetina (Linnaeus, 1758)

Kuyuluk Köyü (12 km S of Kozan), ADANA, 100 m, 17-V-1990

Comment: This subspecies is sometimes treated as the ssp. *obtusa*. Herrmann et al. (1992) have resurrected its generic name into *Macrovipera*.

Vipera raddei raddei (Boettger, 1890)

Iğdır S (W slope of *Büyük Ağrı Dağı*), KARS (now IĞDIR), 1900-2000 m, 10-IX-1987 & 10-V-1988 & 14-V-1989 & 08-IX-1991 & 12-V-1992

Comment: These animals live on a stony slope with rich exposure to the sun and with almost no vegetation, due to daily passing of many herds of sheep.

Vipera raddei kurdistanica Nilson & André, 1986

Yüksekova NE, HAKKÂRİ, 2100-2500 m, 13-V-1988 & 11-V-1989 & 21-V-1990

Comment: This species was abundant in this region, while Sigg (1987) only could discover two animals in more or less the same area. He speaks about sparse patches of vegetation in an area that is mostly devoid of trees or shrub. The author's locality was indeed such an area with small patches of rocky outcrop, which indicates that this species does not depend by all means on any higher vegetation.

Vipera renardi eriwanensis (Reuss, 1933)

Asbua, KARS, 07-VIII-1989 & 26-V-1990, PC 5T068;
Çamlıçatak (E of Ardahan), KARS, 1800 m,
01-VI-1993, PC 11T171-174; Çanaksu, KARS, 2000 m,
25-V-1991 (sloughed skin) & 15-V-1992

Vipera wagneri Nilson & André, 1984

Karakurt E, KARS, 1500-1600 m, 03-VIII-1989 &
28-V-1990 & 02-IX-1990 & 21-V-1991 & 10-IX-1991
& 30-V-1993 & 07-IX-1994

Vipera xanthina Gray, 1849

Ak Dağ (W of Hadim), KONYA, 1830 m, 12-V-1995;
Selçuk 15 km S, İZMİR, 27-V-1987

CONCLUDING REMARKS

The present distribution of amphibians and reptiles in Turkey is not yet sufficiently studied. This study added many new localities. A total of 88 taxa was recorded; for some taxa, from which only few records or localities were known, new data are presented here. Records that justify special attention are:

- The toad *Bufo bufo* found in the Antalya area confirms the recent discovery of the species in this southern region (Gebhart et al. 1990).
- Of the scincid species *Mabuya vittata* a surprising amount of localities were added from the province of Sivas, giving a range extension in northern direction.
- The snake *Leptotyphlops macrorhynchus* was only known from some localities in southern Turkey and the new locality, presented here from the Siirt-region, is east of those.
- A new locality of the recently described viper *Vipera albizona* was found about 100 km east of the type locality.

An irreversible decline of the herpetofauna in this country has been the case for many years, and it is expected to get worse in the future. This is caused by human population growth, modern agricultural techniques, the radical changes of whole areas by the construction of barrages and the heavy irrigation of arid areas. Publications of this kind, with precise localities and dates, will enhance the knowledge of the country's natural history in general and can serve as a base to indicate changes in the distribution of Turkey's herpetofauna.

ACKNOWLEDGEMENTS

I like to thank my father who made the journeys possible. During the trips he was not only my steady companion and driver, but also a helping hand in finding amphibians and reptiles. Prof. dr. E. Gittenberger kindly provided the map we used to make figs. 1 & 2.

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received 15 June 1995

accepted 14 August 1995