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Results of the Czech Biological Expedition to Iran. Part 1. Notes on the distribution of amphibians and reptiles.

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Abstract. Preliminary results of herpetological research carried out by the Czech Biological Expedition „Iran 96" to Western and Central Iran are presented. The expedition took place between April 20 and May 20, 1996. Material was collected in 34 localities distributed in 11 provinces of Iran and in a single locality in Eastern Turkey (the Kars vilayet). The localities were characterized by 30 environmental variables and grouped into following four distinct habitat types: (1) true deserts of Persian Gulf, (2) true deserts of Central Iran, (3) xerophilous woodlands including secondarily desertified landscapes, (4) mesophilous Hyrcanian woodland. A good correspondence between the habitat types and species composition of the herpetofauna is shown. We recorded 5 species of amphibians, 3 species of turtles, 34 species of lizards (8 agamids, 10 gekkonids, 10 lacertids, 4 scincids and 2 anguids) and 26 species of snakes. Habitat requirments and distribution of individual species are discussed.

Distribution, habitat requirments, Amphibia, Reptilia, Palaearctic Region

INTRODUCTION

Iranian herpetofauna was traditionally a subject of zoological research and thus a number of more or less extensive publications providing distributional data and keys to Iranian amphibians and reptiles is available (e. g. Anderson 1963, 1974, 1979, 1985, Bannikov et al. 1977, Forcart 1950, Latifi 1991, Leviton et al. 1992, Mertens 1940, 1956, 1957, Minton et al. 1970, Nilson & Andrén 1981, Schleich 1977, Schmidt 1939, Tuck 1971, Wetstein 1951 and others). These publications represent a solid scientific basis for herpetological research that has become increasingly popular in the course of the last few years. However, as evident from a number of recent publications (e. g., Bosch 1995, Eiselt 1995, Fritz 1994, Moravec 1994, Moravec & Černý 1994, Rastegar-Pouyani 1996, Schmidtler 1994, Schultschik & Steinfartz 1996a, b, Wischuf & Fritz 1996) there are still questions concerning the distribution and taxonomy of Iranian amphibians and reptiles that are to be resolved.

The aim of the present paper is to summarize the preliminary results of herpetological research carried out during the Czech Biological Expedition to Iran (from April 20 to May 20, 1996).

MATERIAL AND METHODS

Material

All the animals and records of their presence evaluated in this paper were collected by the authors and other participants of the expedition Iran 96. In the field, captured individuals were preliminarily determined and thoroughly recorded by the senior author (D. F.). Most of them were photographed and/or video-recorded. The specimens selected for museum collections (further reffered as specimens) were killed and stored in 80% alcohol. The remaining ones (further reffered as individuals captured) were either released on their native locality or transported to Prague and further studied in captivity. Later on, the material was catalogued and determined by two authors (D. F. & J. Č.). The specific and/or subspecific determination and taxonomy were then extensively revised by the second author (J. M.).

The material is deposited in the collections of the National Museum in Prague (catalogue series: NMP6V), and in the Collections of Department of Zoology, Faculty of Science, Charles University, Prague (catalogue series CUP/REPT/IRA, CUP/AMPH/IRA). Catalogue numbers for each specimen are listed below under the Species Account.

List of localities

Studied localities are described in the list below and depicted in Fig. 1. Transliteration of local Iranian names was adopted from Shenasi (1995). The final identification of localities in the field was revised by one of the authors (D. K.).

1. Markan 8 km N Ev Oghly by road (38°52'N 45°18'E), Azarbaycjan-e-Gharbi province, 24 April and 13 May, 1000 m: 8, 12, 15, 17, 25, (20, 22, 27).
2. Jafar Abad SEE of Kashan (33°55'N 51°53'E), Esfahan province, 26–27 April, 800 m: 7, 10, 15, 16, 21, 24, 25, 26, 30.
3. Natanz 25 km N by road (33°31'N 51°54'E), Esfahan province, 27 April, 800 m: 7, 10, 15, 25, (17).
4. Esfahan (32°39'N 59°40'E), Esfahan province, 27 April, 800 m: 7,10,15,25, (30).
5. Qamishlu (32°02'N 51°29'E), Zagros Mts., Esfahan province, 27–28 April, 2000–2200 m: 6, 10, 15, 17, 25, (21, 30).
6. Hane Houre (30°15'N 53°09'E), Fars province, 28 April, 1600 m: 6, 10, 15, 25.
7. Qader Abad 8 km SSW by road (30°14'N 52°12'E , Fars province, 28–29 April, 2100 m: 6, 11, 20, 25, 27, 28, (16, 26).
8. Pasargat (30°12'N 53°10'E), Fars province, 29 April, 1 800 m: 6, 12, 15, 24, 26, (30).
9. Persepolis (Takht-e-Jamshid village) (29°56'N 52°54'E), Fars province, 29 April, 1500 m: 6, 12, 15, 17, 24, 26.
10. Sivand 10 km E by road (30°05'N 52°55'E), Fars province, 29–30 April, 1700 m: 5, 12, 17, 31, (20, 27, 28).
11. Qarch Aghaj river E of Dasht-e-Arzhan by road (29°45'N 52°09'E), Fars province, 30 April, 1500 m: 6, 12, 15, 20, 26, 27, (25).
12. Dasht-e-Arzhan 10 km E by road (29°40'N 51°59'E), Fars province, 1 May, 1800 m: 3, 12, 15, 25, 31, (17).
13. Yasuj 10 km N by road (30°39'N 51°36'E), Kuh-e-Dinar ridge, Zagros Mts., Boyerahmad-va-Kuhgiluyeh province, 1–2 May, 1800–2300 m: 3, 12, 31, (15, 17).
14. Abshar (30°23'N 51°30'E), Fars province, 2–3 May, 1000 m: 4, 12, 17, 20, 30, 31.
15. Qar Sharon (29°44'N 51°34'E), Bishapur env., Fars province, 3 May, 800 m: 4, 12, 15, 17, 20, 23, 25, 26, 30.
16. Bishapur cave (29°44'N 51°34'E), Qar Sharon env., 3 May, 1000 m.
17. Bandar-e-Gonavch (29°34'N 50°31'E), Bushehr province, 3 May, 20 m: 9, 11, 23, 30.
18. Borazgan (29°16'N 51°13'E), Bushehr province, 3 May, 20 m.
19. Chahak 15 km NW Bandar-e-Gonavch by road (29°40'N 50°25'E), Bushehr province, 3–5 May, 20 m: 9, 11, 16, 18, 26.
20. Choqa-Zanbil (zikkurat) (32°00'N 48°31'E), Khuzestan province, 5–6 May, 100 m: 9, 11, 16, 25, 26, 31, (21, 28).
21. Shush (32°11'N 48°14'E), Khuzestan province, 6 May, 100 m: 9, 11, 16, 24, 26, 30, (23).
22. Gholaman 30 km W Khorram Abad by road (33°25'N 48°12'E), Zagros Mts., Lorestan province, 6–7 May, 1000 m: 3, 12, 17, 26, 28, 31, (20).
23. Gonbad 35 km SE of Hamadan (34°40'N 48°45'E), Hamadan province, 7–8 May, 2000 m.
24. Avaj 50 km NNE by road to Takestan (35°34'N 49°13'E), Zanjan province, 8 May, 1800 m: 7, 10, 15, 17, 25, 30.
25. Vali Abad (36°14'N 51°18'E), Alborz Mts. N slopes, Mazandaran province, 8–10 May, 1800–2500 m: 2, 13, 17, 21, 28, 29, 31, 32, (23).
26. Chalus 45 km S by road (36°20'N 51°22'E), Alborz Mts. N slopes, Mazandaran province, 10 May, 800 m: 2, 13, 17, 20, 23, 31.
27. Chalus 25 km S by road (36°28'N 51°24'E), Alborz Mts. N slopes, Mazandaran province, 10 May, 200 m: 1, 13, 17, 20, 21, 32.
28. Chalus (36°38'N 51°25'E), Caspic Sea coast, Mazandaran province, 10 May, –20 m: 1, 13, 21, 22, 28.
29. Chorti 10 km NEE by road (36°46'N 50°30'E), Alborz Mts. N slopes, Mazandaran province, 10–11 May, 480 m: 1, 13, 32, (17, 21).
30. Ramsar (36°54'N 50°40'E), Mazandaran province, 11 May, –20 m: 1,13, 19, 22, 28.
31. Langarud (37°11'N 50°09'E), Gilan province, 11 May, –20 m: 1, 13, 19, 22, 27, 30.
32. Asalem 12 km W by road (37°44'N 48°57'E), Talesh Mts., N slopes, Gilan province, 11–12 May, 280 m: 1, 14, 20, 21, 23, 28, 29, 32, (17, 30).

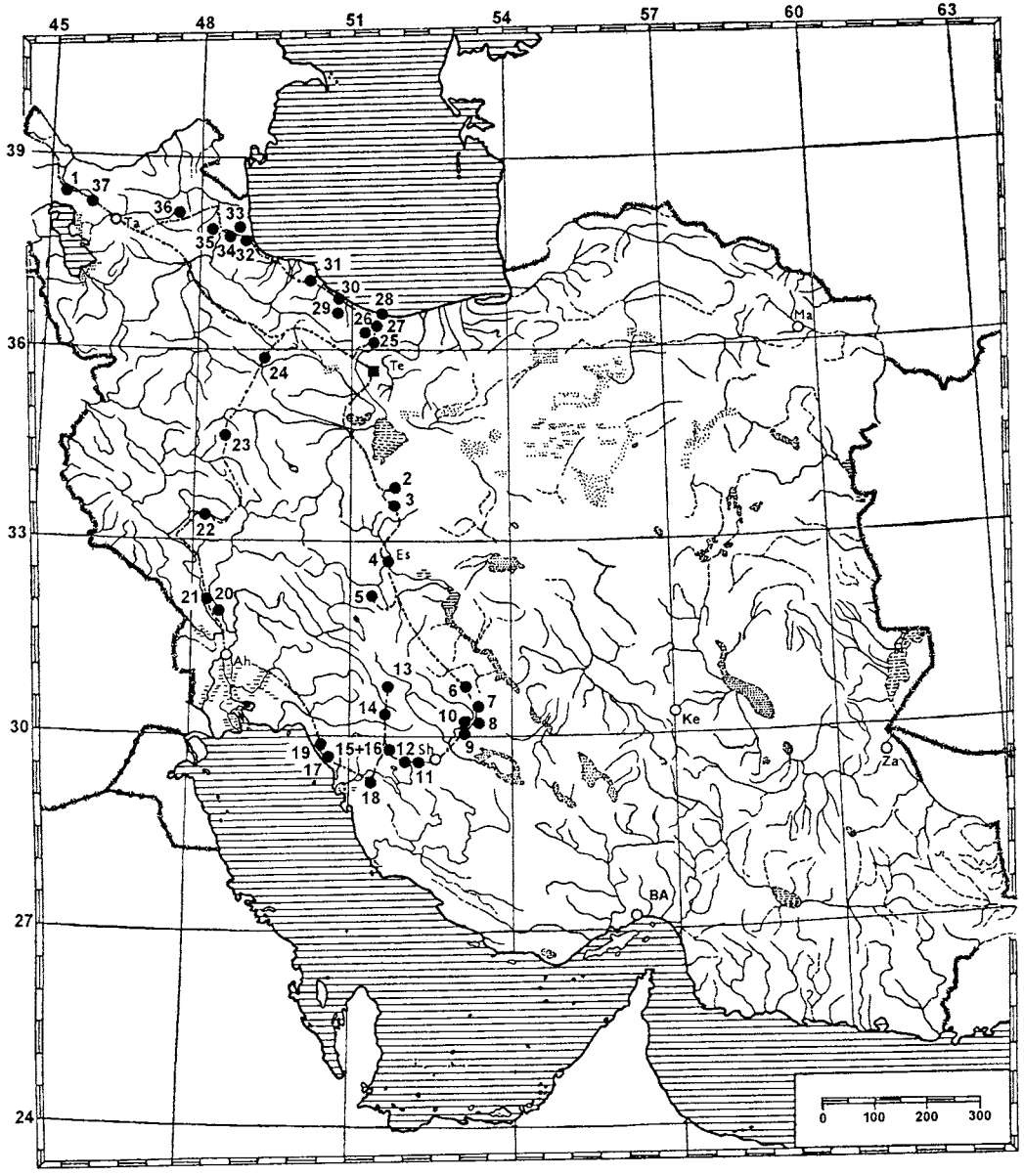

Fig. 1. Map of the Iran with localities of the records. For legend see List of localities.

33. Asalem 26 km W by road (37°46'N 48°59'E), Talesh Mts., N slopes, Gilan province, 12 May, 1890 m: 2, 14, 29, 32, (23).
34. Khalkhal 32 km W of Asalem by road (37°36'N 48°32'E), Talesh Mts., N slopes, Gilan province, 12 May, 2050 m: 2, 14, 29, (23).
35. Kivi (37°40'N 48°22'E), Azarbaycjan-e-Sharqi province, 12 May, 1000 m: 4, 12, 15, 25, 26, (23).
36. Sarab 20 km NE (37°55'N 47°39'E), Azarbaycjan-e-Sharqi province, 12–13 May, 1000 m.
37. Marand 25 km SE by road (38°25'N 45°46'E), Azarbaycjan-e-Sharqi province, 13 May, 900 m: 8, 11, 15, 25.
38. Ev Oghly (38°58'N 45°01'E), Azarbaycjan-e-Garbi province, 13 May, 1000 m: 8, 12, 15, 25.
39. Karakurt env. (40°10'N 42°36'E), Kars province, Turkey, 14 May, 1800 m: 8, 12, 17, 20, 25, 26, 28.

Habitat

The description of habitat was performed by a botanist (J. S.). The habitat parameters were selected without any *a priori* reference to fauna and/or knowledge about the composition of animal species on a given locality. Each locality was characterized by the presence or absence of 30 habitat features. The list of habitat features with ascribed numbers is given in the Appendix 1. The habitat of each locality is described by the sequence of appropriate numbers. The numbers of features of only local, small-scale, and/or marginal importance are given in parentheses. The results of habitat description are given under the List of Localities (see the above list).

Data processing

Faunistic data concerning localities in Iran are presented as Species Account commented by taxonomic remarks. The data obtained in a single locality in Eastern Turkey, which was excluded from further analysis, are given in Appendix 2.

The relationship between habitats and fauna is presented in synoptical tables. We adopted the method of synoptical tables which was used for processing both faunistic and habitat data (performed by J. S.). This classification method is widely used in Zürich-Montpellier approach of phytosociology.

Two independent classifications of localities were made and their results were compared. The localities were classified according to (a) their habitat features, and (b) recorded species of reptiles and amphibians. Both classification procedures were performed „blind". The results were used for the evaluation of relationship between habitat type and herpetofauna.

SPECIES ACCOUNT

EXPLANATION. locality numbers are followed by abbreviated locality names (for full names see List of locaties. Catalogue numbers and names of collectors are given in parentheses.

AMPHIBIA
Anura
Bufonidae

Bufo surdus luristanicus K. Schmidt, 1952

MATERIAL. 53 spec.

RECORDS. **9.** Persepolis, 1 ind. captured (Sádlo); **10.** Sivand, mass occurrence of juveniles, 41 spec. (CUP/AMPH/IRA/015 55, Frynta); **13.** Yasuj, 3 spec. (NMP6V 35677/1–3, Kodym & Král); **14.** Abshar, juveniles observed (Frynta); **17.** Bandar-e-Gonaveh, 1 ind. captured (Frynta), **19.** Chahak, 6 spec. (CUP/AMPH/IRA/001–006, Frynta); **20.** Choqa-Zanbil, 2 spec. (CUP/AMPH/IRA/007, CUP/AMPH/IRA/009, Frynta); **21.** Shush, 1 ind. observed (Král); **22.** Gholaman, 1 spec. (CUP/AMPH/IRA/014, Vořišek).

Bufo viridis ssp. Laurenti, 1768

RECORDS. 7. Qader Abad, 1 ind. captured (Král & Kaftan); **25.** Vali Abad, 1 ind. captured (Kaftan).

Hylidae

Hyla savignyi Audouin, 1827

RECORDS. **10.** Sivand, 2 ind. captured (Hrdý & Frynta); **11.** Qarch Aghaj river, vocalisation (Frynta); **14.** Abshar, vocalisation (Frynta); **22.** Gholaman, 1 spec. (Frynta).

Ranidae

***Rana „ridibunda"* Pallas, 1771**

MATERIAL. 4.

RECORDS. **11.** Qarch Aghaj river, vocalisation (Frynta); **14.** Abshar, 1 spec. (Frynta); **15.** Bishapur, 3 spec. (CUP/AMPH/IRA/010–012, Frynta); **20.** Choqa-Zanbil, 1 spec. (CUP/AMPH/IRA/008, Frynta); **22.** Gholaman, 1 ind. captured (Kaftan); **31.** Langarud, observation (Frynta & Kaftan).

NOTE. The Iranian marsh frog has been traditionally assigned to *Rana ridibunda* Pallas, 1771 (trinomen *R. r. susana* Boulenger, 1905 has been occasionally used for the population from SW Iran). Recently, populations from western Turkey, Israel and the Nile delta were recognized as *Rana levantina* Schneider et al., 1993, which is probably the younger synonym of *Rana bedriagae* Camerano, 1882. Before the elucidation of the taxonomy of *R. ridibunda* complex in the Middle East we prefer to use the traditional name.

***Rana macrocnemis* Boulenger, 1885**

MATERIAL. 1.

RECORDS. **25.** Vali Abad, 1 ind. captured (Kaftan); **29.** Chorti, 1 spec. (CUP/AMPH/IRA/013, Frynta).

NOTE. Subspecies *R. m. pseudodalmatina* Eiselt et Schmidtler, 1971 was described from the Mazanderan province.

REPTILIA

Testudines

Emydidae

***Emys orbicularis* (Linnaeus, 1758)**

RECORD. **31.** Langarud, observation (Kodym).

NOTE. According to Fritz (1994) the population inhabiting south coast of the Caspian Sea belong to the subspecies *E. o. orientalis* Fritz, 1994.

***Mauremys caspica* (Gmelin, 1774)**

RECORDS. **7.** Qader Abad, observation (Král); **20.** Choqa-Zanbil, observation (Vohralík).

NOTE. Because a new subspecies *M. c. ventrimaculata* Wischuf et Fritz, 1996 was recently described from the southern Iran we prefer to use the binomen here.

Testudinidae

***Testudo graeca* Linnaeus, 1758**

MATERIAL. 1.

RECORDS. **7.** Qader Abad, 1 spec. (CUP/REPT/IRA/069, Leikepová), 1 ind. (Šejna); **10.** Sivand, 1 ind. captured (Hradský); **13.** Yasuj, 2 ind. captured (Kaftan, Čiháková).

NOTE. Adults from Sivand and Yasuj had an elongate more or less uniformly brown shell with upturned, emarginate posterior margin. In these characters they correspond to the subspecies *T. g. zarudnyi* Nikolskij, 1896.

Squamata

Lacertilia

Agamidae

***Laudakia caucasia* (Eichwald, 1831)**

MATERIAL. 2.

RECORDS. **24.** Avaj, 1 ind. captured (Rohlena), 1 spec. (CUP/REPT/IRA/030, Leikepová & Frynta); **25.** Vali Abad, 1 spec. (NMP6V 35679, Král & Kodym).

NOTE. Juvenile specimens with 170 (locality 21) and 150 scales (locality 22) around the body.

Laudakia nupta nupta (De Filippi, 1843)

MATERIAL. 2 spec.

RECORDS. **5.** Qamishlu, 1 spec. (NMP6V 35678, Kaftan & Leikepová); **9.** Persepolis, 1 ind. captured (CUP/REPT/IRA/004, Král); **12.** Dasht-e-Arzhan, 1 ind. observed and videotaped (Flegr); **13.** Yasuj, 2 ind. captured (Leikepová), 1 ind. observed (Frynta & Čiháková); 1 ind. captured (Pitule); **14.** Abshar, 1 ind. captured (Pitule); **15.** Qar Sharon, 1 ind. observed (Frynta & Čiháková); **19.** Chahak, 1 ind. captured. (Lundák); **22.** Gholaman, 1 ind. observed (Kaftan & Frynta).

Phrynocephalus persicus de Filippi, 1863

MATERIAL. 1.

RECORD. **38.** Ev Oghly, 1 spec. (CUP/REPT/IRA/003, Šejna).

Phrynocephalus scutellatus (Olivier, 1807)

MATERIAL. 4.

RECORDS. **2.** Jafar Abad, 1 spec. (NMP6V 35680/1, Kaftan), 1 spec. (CUP/REPT/IRA/001, Kaftan); **5.** Qamishlu, 2 ind. captured, 2 spec. (NMP6V 35680/2, CUP/REPT/IRA/002, Rohlena).

Trapelus agilis (Olivier, 1804)

MATERIAL. 4.

RECORDS. **2.** Jafar Abad, 1 spec. (CUP/REPT/IRA/008, Kaftan); **3.** Natanz, 2 spec. (NMP6V 35552, CUP/REPT/IRA/005, Šejna & Hrdý); **19.** Chahak, 1 spec. (CUP/REPT/IRA/009, Šejna), 3 ind. captured (Kaftan).

NOTE. With respect to the difficult taxonomy of the complex *T. agilis-isolepis-sanquinolentus*, we use *T. agilis* sensu lato.

Trapelus persicus persicus (Blanford, 1881)

MATERIAL. 1.

RECORDS. **20.** Choqa-Zanbil, 1 ind. observed (Hrdý), 1 spec. (CUP/REPT/IRA/010, Kaftan).

Trapelus ruderatus (Olivier, 1804)

MATERIAL. 5.

RECORDS. **5.** Qamishlu, 2 spec. (NMP6V 35553/1–2, Šejna), 2 spec. (NMP6V 35553/3, CUP/REPT/IRA/006, Frynta & Čiháková); **8.** Pasargat, 1 spec. (CUP/REPT/IRA/007, Kaftan); **13.** Yasuj, 1 ind. captured (Kaftan).

Uromastyx loricata (Blanford, 1874)

RECORDS. **19.** Chahak, 2 ind. captured (Frynta & Čiháková), 2 ind. captured (Král), 2 ind captured. (Pitule), 1 ind. captured. (Leikepová), 1 ind. captured (Voříšek), 5 ind. captured (Kodym & Kaftan); **20.** Choqa-Zanbil, 1 ind. observed (Král).

Gekkonidae

Agamura persica (Duméril, 1856)

RECORDS. **4.** Esfahan, 1 ind. captured (Pitule); **5.** Qamishlu, 3 ind. captured (Pitule, Pitulová & Šejna).

Asaccus cf. *elisae* (F. Werner, 1895)

MATERIAL. 8.

RECORDS. **20.** Choqa-Zanbil, 4 ind. captured (Pitule), 2 ind. captured (Šejna), 8 spec. (NMP6V 35681/1–4, CUP/REPT/IRA/041–044, Frynta).

NOTE. This gecko is related to *Asaccus elisae* and *Asaccus kermanshaensis* Rastegar-Pouyani, 1996. However, it differs in pholidotic characters from both these taxa. A thorough description will be given elsewhere.

Bunopus tuberculatus Blanford, 1874

MATERIAL. 6.
RECORDS. **19.** Chahak, 2 spec. (NMP6V 35682/1–2, Kaftan), 2 ind. captured (Čiháková), 2 spec. (CUP/REPT/IRA/027–028, Frynta), 4 ind. captured (Šcjna), 2 spec. (NMP6V 35682/3–4, Král); **20.** Choqa-Zanbil, 1 ind. captured (Frynta).

Cyrtopodion agamuroides (Nikolskij, 1899)

MATERIAL. 3.
RECORDS. **10.** Sivand, 1 spec. (NMP6V 35683, Šcjna); **14.** Abshar, 2 spec. (NMP6V 35684, CUP/REPT/IRA/029, Šcjna).

NOTE. According to Ščerbak & Golubjev (1986), this species has been reported from the Kerman province only. Our localities are situated further westwards in the Fars province.

Cyrtopodion gastropholis (F. Werner, 1917)

MATERIAL. 2
RECORDS. **19.** Chahak, 2 spec. (NMP6V 35685, CUP/REPT/IRA/026, Šcjna).

Cyrtopodion scaber (Heyden, 1827)

MATERIAL. 2.
RECORDS. **2.** Jafar Abad, 4 spec. (NMP6V 35686, CUP/REPT/IRA/034, Frynta).

NOTE. Although a widespread species throughout the Middle East, it has not previously been reported from the Esfahan province (Anderson 1974, Ščerbak & Golubjev 1986).

Hemidactylus persicus J. Anderson, 1872

MATERIAL. 1.
RECORD. **14.** Abshar, 1 spec. (NMP6V 35545, Šcjna).

Tropiocolotes helenae (Nikolskij, 1907)

RECORDS. **20.** Choqa-Zanbil, 1 ind. captured (Pitule); **22.** Gholaman, 2 ind. captured (Šcjna), 2 ind. captured (Hrdý), 1 ind. captured (Král).

NOTE. Subspecies *T. helenae fasciatus* Schmidtler et Schmidtler, 1972 was described from the ostans Kordestan-Kermanshah and Khuzestan-Lorestan.

Tropiocolotes latifi Leviton et Anderson, 1972

MATERIAL. 1.
RECORD. **10.** Sivand, 1 spec. (CUP/REPT/IRA/059, Kaftan).

NOTE. The distribution of this species is poorly known (cf. Moravec & Černý 1994), our record considerably extends the range in the southwest direction. In the locality No. 5 (Qamishlu) an additional *Tropiocolotes* with coloration resembling our specimen of *T. latifi* was observed and photographed.

Tropiocolotes persicus persicus (Nikolskij, 1903)

MATERIAL. 1.
RECORD. **19.** Chahak, 1 spec. (NMP6V 35687, Šcjna).

Lacertidae

Eremias persica Blanford, 1874

MATERIAL. 3.
RECORDS. **3.** Natanz, 1 spec. (CUP/REPT/IRA/023, Frynta), 2 spec. (NMP6V 35549/1–2, Kodym & Král).

Eremias sp.

MATERIAL. 8.
RECORDS. **5.** Qamishlu, 4 ind. captured, 8 spec. (NMP6V 35689/1–4, CUP/REPT/IRA/036–038, CUP/REPT/IRA/066, Frynta & Čiháková), 3 ind. captured (Leikepová).

NOTE. Undetermined species related to *E. persica*. A thorough description will be given elsewhere.

Lacerta chlorogaster Boulenger, 1908

MATERIAL. 7.

RECORDS. **29.** Chorti, 5 ind. captured (Hrdý), 2 ind. captured (Sádlo), 3 spec. (NMP6V 35548/1–3, Čiháková), 2 ind. captured (Pitule), 4 spec. (CUP/REPT/LAC/104–106, CUP/REPT/LAC/147, Frynta).

Lacerta defilippi (Camerano, 1877)

MATERIAL. 57.

RECORDS. **25.** Vali Abad, 8 spec. (NMP6V 35547/1–8, Král); 4 ind. captured (Pitule); 8 ind. captured and 45 spec. (CUP/REPT/LAC/9–53, Frynta, Čiháková & Flegr).

Lacerta princeps princeps Blanford, 1874

MATERIAL. 3.

RECORDS. **13.** Yasuj, 2 spec. (NMP6V 35688/1–2, Kaftan), 1 spec. (CUP/REPT/IRA/024, Flegr).

Lacerta strigata Eichwald, 1831

MATERIAL. 1.

RECORDS. **25.** Vali Abad, 1 juv. ind. captured (Šejna), 1 spec. (CUP/REPT/IRA/067, Zitková); **28.** Chalus, sea coast, 1 ind. observed (Flegr); **29.** Chorti, 1 ind. observed (Flegr), 1 ind. observed (Šejna); **31.** Langarud, 5 ind. observed (Frynta).

Lacerta sp.

MATERIAL. 1.

RECORDS. **34.** Khalkhal, 1 spec. (CUP/REPT/IRA/060, Kaftan).

NOTE. Undetermined species resembling *L. raddei* Boettger, 1892. A thorough description will be given elsewhere. Rostral shield in contact with the frontonasal one. Nostrils are not in contact with rostral shield. 10 preanal shields are arranged in a symmetric manner. Two of them (medial) are enlarged.

Mesalina cf. *watsonana* Stoliczka, 1872

MATERIAL. 3.

RECORDS. **2.** Jafar Abad, 1 spec. (CUP/REPT/IRA/047, Zitková), 1 spec. (NMP6V 35550, Frynta); **6.** Hane Houre, 1 spec. (CUP/REPT/IRA/046, Frynta).

NOTE. The specimens examined have a free collar with enlarged marginal scales.

Ophisops elegans Ménétriés, 1832

MATERIAL. 16.

RECORDS. **1.** Markan, 1 ind. captured (Frynta); **5.** Qamishlu, 1 ind. captured (Flegr), 7 spec. (NMP6V 35554/1–7, Frynta, Čiháková, Flegr & Sádlo); **7.** Qader Abad, ind. captured (Frynta); **8.** Pasargat, 1 spec. (CUP/REPT/IRA/048, Frynta); **12.** Dasht-e-Arzhan, 1 ind. captured (Frynta), 3 spec. (CUP/REPT/IRA/057–058, Frynta); **13.** Yasuj, 4 spec. (CUP/REPT/IRA/041–044, Frynta), 1 ind. captured (Leikepová); **22.** Gholaman, 1 spec. (CUP/REPT/IRA/049, Frynta); **37.** Marand, 1 spec. (CUP/REPT/IRA/050, Sádlo).

NOTE. All specimens have two postnasals. Dark vertebral line is usually inconspicuous or absent. In animals from the localities 8, 12, and 37 a short vertebral line reaches maximally shoulder.

Scincidae

Ablepharus pannonicus (Fitzinger in Lichtenstein, 1823)

MATERIAL. 2.

RECORDS. **5.** Qamishlu, 1 ind. observed (Hrdý); **10.** Sivand, 1 spec. (CUP/REPT/IRA/056, Frynta); **12.** Dasht-e-Arzhan, 1 spec. (NMP6V 34556, Kodym); **13.** Yasuj, 2 ind. captured (Hrdý), 1 ind. observed (Frynta).

Eumeces schneideri princeps Eichwald, 1839

MATERIAL. 1.
RECORD. **1.** Markan, 1 spec. (Kaftan).

Mabuya „aurata" (Linnaeus, 1758)

MATERIAL. 1.
RECORDS. **1.** Markan, 1 spec. (NMP6V 35555, Obuch); **14.** Abshar, 2 ind. captured (Šejna & Kaftan), 4 ind. observed (Čiháková & Frynta); **22.** Gholaman, observation (Frynta & Kaftan), 1 ind. captured (Šejna).

NOTE. Awaiting a clarification of the complex taxonomy of *M. aurata* complex we give a tentative determination. It should be mentioned that scincids of the genus *Mabuya*, most probably *M. „aurata"* were observed in additional five localities:
7. Qader Abad (Šejna); **10.** Sivand (Flegr); **12.** Dasht-e-Arzhan (Flegr); **13.** Yasuj (Kaftan & Leikepová); **15.** Qar Sharon (Král).

Ophiomorus persicus (Steindachner, 1867)

MATERIAL. 2.
RECORDS. **10.** Sivand, 2 spec. (NMP6V 35557, CUP/REPT/IRA/062, Král).

Anguidae

Anguis fragilis colchicus (Nordmann, 1840)

MATERIAL. 4.
RECORDS. **29.** Chorti, 1 ind. observed (Pitule), 5 ind. observed (Kaftan); **32.** Asalem 12 km W, 1 spec. (NMP6V 35557, Král); **33.** Asalem 26 km W, 2 spec. (CUP/REPT/IRA/021–022, Kaftan), 1 spec. (CUP/REPT/IRA/068, Šejna).

Ophisaurus apodus (Pallas, 1775)

RECORDS. **26.** Chalus 45 km S, 1 ind. captured and 1 dead found on the road (Král & Kaftan); **27.** Chalus 25 km S, 1 ind. observed (Obuch); **29.** Chorti, 1 ind. observed (Šejna); **32.** Asalem 12 km W, 1 ind. captured (Hrdý).

Serpentes

Typhlopidae

Typhlops vermicularis Merrem, 1820

MATERIAL. 5.
RECORDS. **8.** Pasargat, 1 spec. (NMP6V 35558, Král); **10.** Sivand, 1 spec. (CUP/REPT/IRA/032, Kaftan); **14.** Abshar, 1 ind. captured (Šejna); **22.** Gholaman, 1 ind. captured (Šejna), 1 ind. captured (Hrdý), 1 ind. captured, 1 spec. (NMP6V 35559, Král); **24.** Avaj, 1 ind. captured (Frynta); **27.** Chalus 25 km S, 1 spec. (CUP/REPT/IRA/045, Kaftan); **35.** Kivi, 2 ind. captured, 1 spec. (CUP/REPT/IRA/040, Šejna).

Leptotyphlopidae

Leptotyphlops macrorhynchus (Jan, 1861)

MATERIAL. 1.
RECORDS. **22.** Gholaman, 1 spec. (CUP/REPT/IRA/039, Král), 2 ind. captured. (Hrdý).

Boidae

Eryx jaculus (Linnaeus, 1758)

RECORD. **10.** Sivand, 1 ind. observed (Hrdý).

NOTE. *Eryx jaculus familiaris* Eichwald, 1831 is recognized from NW Iran by some authors.

Colubridae

Coluber najadum najadum (Eichwald, 1831)

MATERIAL. 2.
RECORDS. **5.** Qamishlu, 1 spec. (CUP/REPT/IRA/031, Kaftan); **13.** Yasuj, 1 ind. captured (Šejna); **24.** Avaj, 1 spec. (NMP6V 35563, Šejna);

Coluber ravergieri Reuss, 1834

MATERIAL. 1.
RECORD. **25.** Vali Abad, 1 spec. (CUP/REPT/IRA/011, Král).

Coluber rhodorachis (Jan, 1865)

MATERIAL. 1.
RECORD. **5.** Qamishlu, 1 spec. (CUP/REPT/IRA/015, Sádlo & Frynta).

NOTE. The specimen collected has a distinct longitudinal reddish stripe. Populations of this pattern are often understood as nominoptypical subspecies.

Coluber schmidti Nikolskij, 1909

MATERIAL. 1.
RECORD. **24.** Avaj, 1 spec. (CUP/REPT/IRA/016, Hrdý).

Coronella austriaca austriaca Laurenti, 1768

MATERIAL. 3.
RECORDS. **25.** Vali Abad, 1 spec. (NMP6V 35562/1–2, Král), 1 spec. (CUP/REPT/IRA/014, Komárek); **27.** Chalus 25 km S, 1 ind. captured (Hrdý); **32.** Asalem 12 km W, 1 ind. observed (Král).

Eirenis punctatolineatus (Boettger, 1892)

MATERIAL. 4.
RECORDS. **1.** Markan, 1 ind. captured (Šejna), 1 spec. (NMP6V 35565, Šejna), 1 spec. (CUP/REPT/IRA/020, Kaftan); **7.** Qader Abad, 1 ind. captured (Kaftan); **14.** Abshar, 2 ind. captured (Kaftan); **22.** Gholaman, 1 spec. (NMP6V 35566, Král); **24.** Avaj, 1 spec. (CUP/REPT/IRA/025, Šejna).

Elaphe persica Werner, 1913

MATERIAL. 1.
RECORDS. **29.** Chorti, 1 ind. captured (Kaftan), 1 juv. spec. (NMP6V 35561, Kodym).

Lytorhynchus ridgewayi Boulenger, 1887

MATERIAL. 1.
RECORD. **6.** Hane Houre, 1 spec. (CUP/REPT/IRA/035, Hrdý).

Malpolon monspessulanus insignitus (Geoffroy St. Hilaire, 1809)

MATERIAL. 1.
RECORD. **22.** Gholaman, 1 spec. (NMP6V 35676, Král), 1 ind. observed (Šejna).

Psammophis lineolatum Brandt, 1838

RECORD. **5.** Qamishlu, 1 ind. captured (Kodym).

Psammophis schokari (Forskal, 1775)

MATERIAL. 1.
RECORDS. **2.** Jafar Abad, 1 ind. captured (Kaftan); **14.** Abshar, 1 spec. (CUP/REPT/IRA/013, Kaftan).

Natrix natrix (Linnaeus, 1758)

MATERIAL. 2.
RECORDS. **29.** Chorti, 1 ind. with coloration „*persa*" captured (Kaftan); **31.** Langarud, 2 spec. with a standard slightly melanistic coloration (CUP/REPT/IRA/017–018, Frynta).

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

MATERIAL. 2.

RECORDS. **10.** Sivand, 1 spec. (NMP6V 35568, Voříšek); **25.** Vali Abad, 1 ind. captured (Kaftan); **30.** Ramsar, 1 ind. observed (Frynta); **31.** Langarud, 1 spec. (CUP/REPT/IRA/019, Sádlo).

***Pseudocyclophis persica* (Anderson, 1872)**

MATERIAL. 3.

RECORDS. **7.** Qader Abad, 2 spec. (NMP6V 35560, CUP/REPT/IRA/033, Frynta); **12.** Dasht-e-Arzhan, 1 spec. (CUP/REPT/IRA/064, Čiháková & Frynta).

NOTE. Regarding mainly the colour pattern 2–3 subspecies are distinguished by some authors (see e. g. Bannikov et al. 1977). The coloration of two subadult specimens from loc. 7 corresponds to the nominotypical form (head and neck with three more or less fused dark bands, body uniformly light). However, the adult specimen from loc. 12 differs from the previous ones in having unicolored head, which is only slightly darker than the body. This colour pattern is reported for the males of the eastern subspecies *P. p. walteri* (Boettger, 1888), nevertheless the mentioned specimen has lower number of subcaudals (70 versus 75–110 given by Bannikov et al. 1977 for *walteri*). Thus the current knowledge of the taxonomy of *P. persica* seems not to be sufficient.

***Spalerosophis diadema schiraziana* Jan, 1865.**

RECORD. **7.** Qader Abad, fragments of the skin (Kodym).

***Spalerosophis microlepis* (Jan, 1865).**

RECORD. **5.** Qamishlu, 1 ind. captured (Kaftan).

Viperidae

***Agkistrodon intermedius caucasicus* (Nikolskij, 1907)**

MATERIAL. 1.

RECORDS. **25.** Vali Abad, 1 spec. (NMP6V 35563, Král), 1 ind. captured (Kaftan), 1 ind. observed (Obuch); **29.** Chorti, 1 ind. captured (Šejna).

***Echis carinatus* (Schneider, 1801)**

RECORDS. **19.** Chahak, 2 ind. captured (Kaftan), 1 ind. captured (Šejna).

NOTE. The subspecific status has not been determined.

***Vipera lebetina obtusa* Dwigubsky, 1832**

RECORDS. **7.** Qader Abad, fragments of the skin (Kodym); **22.** Gholaman, 1 ind. captured (Kaftan).

ECOLOGICAL REQUIRMENTS AND BIOGEOGRAPHIC PATTERN

When classified according to habitat parameters, the localities split into the four well-defined groups (Tab. 1). Parameters of both landscape (Landscape vegetation units, Rainfall) and local (Local habitat features) level contributed to the classification, however, the former level played the major role. Resulting groups of localities are characterized as follows: A-area of the Persian Gulf, B-areas of „true" deserts, C-areas of xerophilous woodland including secondarily deforested desert landscapes, D-area of mesophilous Hyrcanian woodland in the Alborz Mts, the Talesh Mts, and the Caspian coast.

In spite of the limited amount of our material and also the fact that some localities were selected unintentionally (e.g., some camping or resting sites), the distribution of amphibian and reptile species in individual localities showed a clear pattern. The same distinct groups of locali-

Table 1. Synoptical table of environmental features in the individual localities. Abbreviations: Groups of localities: A – area of the Persian gulf, B – areas of „true" deserts, C – areas of xerophilous woodland including secondary deforested desert landscapes, D – area of mesophilous Hyrcanian woodland in Alborz Mts, Talesh Mts. and the Caspian coast, x – large scale features, a – small scale or marginal features. For localities and environmental features see list of localities.

Number of locality:	A	A	A	A	B	B	B	B	B	B	B	B	B	B	B	C	C	C	C	C	C	C	C	C	C	D	D	D	D	D	D	D	D	D	D
Habitat features	20	21	19	17	7	9	2	8	24	4	3	5	38	6	37	15	35	11	12	1	22	13	14	10	32	25	26	27	33	34	29	31	28	30
11	x	x	x	x	.	.	.	.	.	.	.	.	.	.	x	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
9	x	x	x	x	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
16	x	x	x	.	a	.	x	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
25	x	x	x	.	a	x	x	x	.	.	.	.	.	.	.	x	x	x	.	.	x	.	.	.	.	.	.	.	.	.	.	.	.	.
24	x	.	.	.	x	.	x	.	x	x	x	x	x	x	x	x	x	a	x	x	.	.	.	.	.	.	.	.	.	.	.	.	.	.
15	.	.	.	.	.	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	.	a	.	.	.	.	.	.	.	.	.	.	.	.
10	.	.	.	.	x	.	x	.	x	x	x	x	.	x	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
6	.	.	.	.	x	x	.	x	.	.	.	x	.	x	.	.	.	x	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
7	.	.	.	.	.	.	x	.	x	x	x	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
23	.	x	.	.	.	x	x	x	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
12	.	.	.	.	.	x	.	x	.	.	.	.	x	.	.	x	x	x	x	x	x	x	x	x	.	.	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	x	x	.	.	.	.	.	x	.	.	.	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	x	.	x	x	.	.	.	.	.	.	.	.	.	.	.	.
20	.	.	.	.	x	.	.	.	.	.	.	.	.	.	.	x	.	x	.	a	a	.	x	a	x	.	x	x	.	.	.	.	.	.
29	x	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	x	.	x	x	x	x	.	x	x	.	.	.	.	.	.	.
26	a	.	.	.	x	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	x	.	.	a	x	x	.	.	.	.	.	.	.	.
13	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	x	x	x	.	.	x	x	x	x
1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	x	.	.	x	.	.	x	x	x	x
30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	x	x	.	x	x	.	x	.	.	.
22	.	a	.	x	.	.	.	.	.	.	.	.	.	.	.	x	a	.	.	.	.	.	.	.	x	a	x	.	a	a	.	x	x	x
21	a	.	.	.	.	.	x	.	.	.	.	a	.	.	.	.	.	.	.	.	.	.	.	.	x	x	.	x	.	.	a	.	x	.
27	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	x	x	.	.	x	x	.	.	.	.
2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	x	x	.	x	x	.	.	.	.
14	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	x	.	.	.	x	x	.	.	.	.
17	.	.	.	.	.	x	.	.	x	.	a	x	.	.	.	x	.	.	a	x	x	a	x	x	a	x	x	x	.	.	a	.	.	.
28	.	x	.	x	.	.	x	a	x	a	.	a	.	.	.	x	.	.	.	.	.	.	x	.	a	.	.	.	.	.	.	x	x	x
19	.	.	.	.	x	.	.	.	.	.	.	.	.	.	.	.	.	x	.	a	.	.	.	a	.	.	.	.	.	.	.	x	.	x
8	.	.	.	.	.	.	.	.	.	.	.	.	x	.	x	.	.	.	.	x	.	.	.	.	.	.	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	x	.	.	.	.	.	.	.	.	.	.
18	.	.	x	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

ties as above (A-D) and six main groups of species were obtained by an independent procedure (classification according to species). Thus, both classifications produced unequivocal and, moreover, mutually corresponding results. These facts can be attributed to considerable contrasts among landscapes and zoogeographical regions in studied area.

Clustering of localities according to species corresponds well with the vegetation regions according to Zohary (1973), and with incidental rainfall. It seems that Zohary's classification of Iran area into vegetation units has a good explanatory value also for the herpetofauna. The most interesting example that can be demonstrated by our data is Zohary's differentiation between primary desert areas and desert areas resulting from anthropogenous deforestation. In spite of the general features of both desert types, herpetofauna of the former areas is characterized by specific forms (e. g., *Phrynocephalus* spp., *Eremias* spp., *Mesalina* cf. *watsonana, Agamura persica*), while the herpetofauna of the latter ones fairly resembles that of the territories still covered by xerophilous forest.

Table 2. Synoptical table of animal species in the individual localities. For abbreviations see Table 1.

Number of locality:	A 20	A 21	A 19	A 17	B 7	B 9	B 2	B 8	B 24	B 4	B 3	B 5	B 38	B 6	B 37	C 15	C 35	C 11	C 12	C 1	C 22	C 13	C 14	C 10	D 32	D 25	D 26	D 27	D 33	D 34	D 29	D 31	D 28	D 30
Bunopus tuberculatus	x	.	x	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Uromastyx loricata	x	.	x	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Trapelus p. persicus	x	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Asaccus cf. *elisae*	x	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
C. gastropholis	.	.	x	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Trapiocolotes persicus	.	.	x	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Echis carinatus	.	.	x	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
P. scutellatus	.	.	.	.	.	.	x	.	.	.	.	x	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Agamura persica	.	.	.	.	.	.	.	.	x	.	.	x	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mesalina cf. *watsonana*	.	.	.	.	.	.	x	.	.	.	.	.	.	x	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Spalerosophis diadema	.	.	.	.	x	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cyrtopodion scaber	.	.	.	.	.	.	x	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Coluber schmidti	.	.	.	.	.	.	.	.	x	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Eremias persica	.	.	.	.	.	.	.	.	.	.	x	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Eremias sp.	.	.	.	.	.	.	.	.	.	.	.	x	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Coluber rhodorachis	.	.	.	.	.	.	.	.	.	.	.	x	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Psammophis lineolatum	.	.	.	.	.	.	.	.	.	.	.	x	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Spalerosophis microlepis	.	.	.	.	.	.	.	.	.	.	.	x	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Phrynocephalus persicus	.	.	.	.	.	.	.	.	.	.	.	.	x	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Lytorhynchus ridgewayi	.	.	.	.	.	.	.	.	.	.	.	.	.	x	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Ophisops elegans	.	.	.	.	x	.	.	x	.	.	.	x	.	.	x	.	.	.	x	x	x	x	.	.	.	.	.	.	.	.	.	.	.	.
Mabuya aurata	.	.	.	.	x	.	.	.	.	.	.	.	.	.	.	x	.	.	x	x	x	x	x	x	.	.	.	.	.	.	.	.	.	.
Eirenis punctatolineatus	.	.	.	.	x	.	.	.	x	.	.	.	.	.	.	.	.	.	.	x	x	.	x	.	.	.	.	.	.	.	.	.	.	.
Ablepharus pannonicus	.	.	.	.	.	.	.	.	.	.	.	x	.	.	.	.	.	.	x	.	.	x	.	x	.	.	.	.	.	.	.	.	.	.
Testudo graeca	.	.	.	.	x	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	x	.	.	.	.	.	.	.	.	.	.
Trapelus ruderatus	.	.	.	.	.	.	.	x	.	.	.	x	.	.	.	.	.	.	.	.	.	.	.	x	.	.	.	.	.	.	.	.	.	.
Coluber n. najadum	.	.	.	.	.	.	.	.	x	.	.	x	.	.	.	.	.	.	.	.	.	.	.	x	.	.	.	.	.	.	.	.	.	.
Pseudocyclophis persica	.	.	.	.	x	.	.	.	.	.	.	.	.	.	.	.	.	.	x	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Psammophis schokari	.	.	.	.	.	.	x	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	x	.	.	.	.	.	.	.	.	.
Vipera lebetina obtusa	.	.	.	.	x	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	x	.	.	.	.	.	.	.	.	.	.	.	.	.
Hyla savignyi	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	x	.	.	x	.	x	x	.	.	.	.	.	.	.	.	.	.
C. agamuroides	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	x	.	.	.	.	.	.	.	.	.	.
Eumeces s. princeps	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	x	.	.	.	.	.	.	.	.	.	.	.	.	.	.
L. macrorhynchus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	x	.	.	.	.	.	.	.	.	.	.	.	.	.
Malpolon m. insignitus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	x	.	.	.	.	.	.	.	.	.	.	.	.	.
Lacerta p. princeps	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	x	.	.	.	.	.	.	.	.	.	.	.	.
Hemidactylus persicus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	x	.	.	.	.	.	.	.	.	.	.
Tropiocolotes latifi	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	x	.	.	.	.	.	.	.	.	.
Ophiomorus persicus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	x	.	.	.	.	.	.	.	.	.
Eryx jaculus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	x	.	.	.	.	.	.	.	.	.
Lacerta strigata	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	x	.	.	x	x	x	.
Ophisaurus apodus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	x	.	x	x	.	.	.	.
Anguis fragilis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	x	.	.	.	x	.	x	.
Coronella austriaca	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	x	x	.	x	.	.	.	.
Rana macrocnemis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	x	.	.	.	x	.	.
Agkistrodon intermedius	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	x	.	.	.	x	.	.
Natrix natrix	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	x	x	.
Coluber ravergieri	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	x	.	.	.	.	.	.
Lacerta defilippi	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	x	.	.	.	.	.	.
Lacerta sp.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	x	.	.	.
Lacerta chlorogaster	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	x	.	.
Elaphe persica	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	x	.	.
Emys orbicularis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	x	.
Laudakia nupta	.	.	x	.	.	x	.	.	.	.	.	x	.	.	.	x	.	.	x	.	x	x	x	.	.	.	.	.	.	.	.	.	.	.
Bufo s. luristanicus	x	x	x	x	.	x	.	.	.	.	.	.	.	.	.	.	.	.	.	.	x	x	x	x	.	.	.	.	.	.	.	.	.	.
Trapelus agilis	.	.	x	.	.	.	x	.	.	.	x	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mauremys caspica	x	.	.	.	x	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Tropiocolotes helenae	x	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	x	.	.	.	.	.	.	.	.	.	.	.	.	.
Bufo viridis spp.	.	.	.	.	x	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	x	.	.	.	.	.	.
Laudakia caucasia	.	.	.	.	.	.	.	.	x	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	x	.	.	.	.	.	.
Natrix tessellata	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	x	.	.	x	.	.	.	x	.	x
Rana ridibunda	x	.	.	.	.	.	.	.	.	.	.	.	.	.	.	x	.	x	.	.	x	.	x	.	.	.	.	.	.	.	.	x	.	.
Typhlops vermicularis	.	.	.	.	.	.	.	x	x	.	.	.	.	.	.	.	x	.	.	.	x	.	x	x	.	.	.	.	x	.	.	.	.	.

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APPENDIX 1.

Survey of habitat features

LANDSCAPE VEGETATION UNITS (Zohary 1973). **1** Mesic woodland of *Zelkovo-Parrotietea*, **2** Mesic woodland of *Fagetea hyrcanica*, **3** Steppe woodland of *Quercetea brandtii*, **4** Deforested area of the latter unit, **5** Steppe woodland of *Junipero-Pistacietea*, **6** Deforested area of the latter unit, **7** Continental steppes of the *Artemisietea herbae-albae*, **8** Mountain steppes of the *Artemisietea fragrantis* with the *Quercetea brandtii* remnants, **9** Tropical deserts to savannas of *Acacietea flavae*.
RAINFALL IN MM/YEAR (Zohary 1973). **10** 100–200, **11** 200–400, **12** 400–600, **13** 1200–200, **14** over 2000,
LOCAL HABITAT FEATURES. **15** stony or gravely open surfaces, **16** clay open surfaces, **17** rocks and deep screes, **18** sand dunes on seaside, **19** wetland with reeds and/or rice fields, **20** river, **21** water spring, rillet, small basin, **22** recently settled buildings of villages or towns, **23** ruins of old (mostly ancient) buildings, **24** open semi-desert stands of sclerophyte dwarf-shrubs, **25** stands of annual weeds and ephemerals, **26** xerophilous grassy pastures, **27** mesophilous high-mountain grassy pastures, **28** mosaic of gardens, corn fields and ruderal stands, **29** park-like mosaic of trees, shrubs and xerophilous herbaceous vegetation, **30** closed mesophilous wood.

APPENDIX 2.

Data collected in the locality 39. Karakurt, Turkey

Lacerta sp.
RECORD. 1 spec. (CUP/REPT/IRA/061, Frynta).

NOTE. Juvenile specimen belonging to *Lacerta raddei* Boettger complex.

Eryx jaculus (Linnaeus, 1758)
RECORD. 1 ind. captured (Pitulc).

Coluber najadum cf. *dahli* Schinz, 1833
MATERIAL. 2.
RECORDS. 2 spec. (NMP6V 35564/1–2, Král).

NOTE. The colour pattern of the 1st specimen corresponds to the pattern of *C. n. dahli*. In the case of the 2nd specimen, the 1st pair of neck spots is fused and other spots are small and inconspicuous.

Eirenis modestus (Martin, 1838)
MATERIAL. 3.
RECORDS. 1 ind. captured (Kaftan), 4 ind. captured (Král), 5 ind. captured (Šejna), 3 ind. captured (Pitulc), 2 spec. (CUP/REPT/IRA/012, CUP/REPT/IRA/063, Kaftan), 1 spec. (NMP6V 35567, Král).

Natrix tessellata (Laurenti, 1768)
MATERIAL. 1.
RECORD. 1 spec. (NMP6V 35569, Kodym), 1 ind. captured (Frynta).

Vipera wagneri Nilson et Andrén, 1984
RECORDS. 2 ind. captured (Kaftan), 3 ind. captured (Král, Šejna, Pitulc).