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The herpetofauna (Amphibia and Reptilia) of the Western Rhodopes mountain (Bulgaria and Greece)

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Abstract: The Western Rhodopes (8732 km^2) encompass vast forested areas and transborder mountain ridges up to 2191 m a.s.l between Bulgaria and Greece. The paper outlines all published herpetofaunal data for Bulgarian and Greek Western Rhodopes and supplements many original records. The herpetological diversity is remarkably high: 12 species of amphibians (4 tailed and 8 anurans) and 27 species of reptiles (2 tortoises, 2 terrapins, 12 lizards and 11 snakes). Altogether 34 species were found in the Bulgarian part, 32 were proved for the Greek part of the mountain. Two species of snakes, *Typhlops vermicularis* and *Zamenis situla* are considered extinct for the studied region. The most common and abundant amphibians are *Salamandra salamandra*, *Rana temporaria*, *Rana graeca* and *Bufo bufo*. The most widespread reptiles are *Podarcis muralis*, *Lacerta viridis*, *Anguis fragilis*, *Natrix natrix* and *Coronella austriaca*. Brief zoogeographical analysis and distribution maps for the majority of the species are provided. Herpetological conservation issues and threats are also discussed.

Key words: Amphibia, Reptilia, Western Rhodopes, Bulgaria, Greece, distribution, conservation

Introduction

The Western Rhodopes form a vast expanse of mountain ridges covered with dense forests. The species composition and distribution of the herpetofauna of the mountain has never been summarized for both countries. Being a border mountain between Bulgaria and Greece, large areas remained poorly studied for a long period due to cold war restrictions.

The earliest herpetological records came from the base of the mountain (Bulgaria) and were published by HRISTOVICH (1892), KOWATSCHEFF (1912) and KOVATCHEV (1917). The knowledge on the species composition of amphibians and reptiles in the Western Rhodopes got a surge after BURESCH & ZONKOW (1932, 1933, 1934, 1941 and 1942) published their fundamental herpetological papers. Occasional findings of various species were published or presented by ANGELOV et al. (1966, 1972), BESHKOV

(1961, 1966, 1970, 1972 a, b, 1985), BESHKOV et al. (1967, 1981), DUHALOV (1999), SABEVA (1965) and VESSELINOV (1994).

The herpetofauna of the Greek Rhodopes remained poorly studied for a long period. Herpetofaunal data were published by CHONDROPOULOS (1986, 1989) and later contributed with records by ASIMAKOPOULOS (1989; 1994a, b; 1997a), IOANNIDIS & BOUSBOURAS (1989), NILSON & ANDRÉN (1987), BOUSBOURAS et al. (1997) and some others. As B. Asimakopoulos, who carried out most of the field surveys (1986-1990), focussed mainly on amphibians, this group is covered relatively better than the Rhodopean reptiles. In spite of these contributions, some species have never been published for the mountain and the distribution of many others remained poorly known.

The present review paper aims to outline all published herpetofaunal records for the Bulgarian and Greek parts. It also supplements many additional records and comments for all species, and so supplies knowledge of their local distribution, which would allow an up-to-date regional conservation planning, mapping and zoning. By providing summarized chorological data, we will greatly facilitate the identification of biodiversity hot spots and their further designation and management as protected territories.

Material and methods

The Western Rhodopes are the largest mountain land within the Rilo-Rhodopean chain. The mountain covers 8732 sq. km of which 8061 sq. km belong to Bulgaria and 671 sq. km are in Greece. The lowest foothills start from ca. 100 m in Greece and the highest point reaches 2191 m a.s.l in Bulgaria (Golyam Perelik Summit). More than half of the mountain (53.6%) is considered as montane land (800-1400 m). The precipitation maximum is in May-June with a subsidiary peak in November-December. The river network is dense and their flow regimes follow the local precipitation trends. The climate is basically transitional continental and the average temperature of the air varies between 5°C to 9°C. The composition of the vegetation cover depends on the altitude and the exposure of the slopes. Conifers like *Pinus sylvestris*, *P. heldreichii*, *Picea abies* and *Abies alba* cover vast areas in the Bulgarian part (more than 70% of the tree coverage) and along the border with Greece between 1000 m and 1900 m. The tree cover in the lower belts is dominated by *Fagus sylvatica*, *Quercus petraea, Q. pubescens, Q. frainetto, Q. cerris* and *Q. coccifera* (the latter only in Greece).

New findings from Bulgaria were discovered mainly during the last 25 years (1980-2005) though older records were also considered. Some areas, especially west of Vacha River Valley (e.g. Dubrash Ridge) were rarely visited compared to other areas (e.g. Dobrostan Ridge, Chernatisa Ridge, Trigrad and Pamporovo areas).

Original records from Greece come mostly from two sites - 'Paranesti Virgin Forest' (= "Zagradenia Forest" or "Frakto Forest") and its surroundings and from the Kompsatos River Valley near the Bulgarian border north of Iasmos. We call "Base Camp of Paranesti Virgin Forest" the visitor's center of the Forest Administration of Drama, which is situated in the middle of that area. The studied parts of the mountain belong to the prefectures of Rodopi, Xanthi and Drama.

Amphibians and reptiles were noted at sight or caught by hand for exact identification of species, sex, age and reproductive status. Animals killed on the road or in other ways were carefully examined to best possible taxonomic unit. Oral communications from local people or non-professionals were further considered when occurrence of the species in the area was suspected or was confirmed during the field trips of the authors. *Salamandra salamandra*, *Hyla arborea*, *Bombina variegata*, *Rana ridibunda* (together with *R. kurtmuelleri* (*balcanica*) in Greece), *Podarcis muralis* and *Lacerta viridis* are considered as common and their localities are not mapped. Data from literature are summarized and presented in the list with localities. The locality number [in brackets] is the same as on the respective distributional map. Original records are mapped with filled (black) symbols, literature data are given with hollow (white) symbols. Localities without precise collecting data (e.g. Rodopi) are ommited from the maps. Mesta River (BG) = Nestos River (GR). **KOR** = killed on the road. Names of the principal collectors are abbreviated as follows: **BP** - B. Petrov, **HS** - H. Strijbosch, **NTz** - N. Tzankov, **VB** - V. Beshkov, **GP** - G. Popgeorgiev.

Species composition and distribution of amphibians and reptiles in the Western Rhodopes

A m p h i b i a

A total of 12 species of amphibians (4 tailed and 8 anurans) were found in the Western Rhodopes. This represents 75% of the 16 species known to occur in Bulgaria (BESHKOV & NANEV, 2002). Eleven species were proved for the Greek part of the mountain, which is 69% of the 16 amphibian species found on the continental lands of Greece (ENGELMANN et al., 1993).

Salamandra salamandra (Linnaeus, 1758)

Published data

Bulgaria: Varvara [1] (HRISTOVICH, 1892); near Ladjene (now Velingrad), 4.6.1925 [2]; 2 spec., Yundola Site, alt. 950 m, 2.8.1928 [3]; River Lepenitsa above Chepino (now Velingrad), alt. 1200 m, 31.6.1927 [4]; 3 spec., above Batak, Batashko Lake (Batak Dam), alt. 1200 m, 4.5.1921 [5]; 2 spec., near Beglika forest lodge, 20.6.1926 [6]; 2 spec., Lyubcha, alt. 1100 m, 20.6.1926 [7]; 2 spec., Gyok Tepe and Kara-Bulak (now Borino), alt. 1500 m, 17.9.1934 [8]; Chepelare, alt. 1100 m, 29.6.1924 [9]; 2 spec., Stoykite, below Karlaka Summit, 31.7.1931 [10]; Smolyanski Lakes, below Karamandza Summit (now Snezhanka Summit), alt. 1200 m, 22.7.1938 [11] (BURESCH & ZONKOW, 1941); 1 spec., near Ruen Hut, alt. 1200 m, September 1960 [12]; 2 spec., near Chudnite Mostove Hut, alt. 1500, May 1960 m [13] (ANGELOV & KALCHEV, 1961).

Greece: Miki, alt. 280 m [4]; Likodromion, alt. 390 m [15]; Levadetes, alt. 1200 m [16]; "Gefira Leonida", Arkoudorema River, Haidou Forest, alt. 1000 m [17]; Oxios River near Prasinada, alt. 600 m [18]; Dipotama, alt. 640 m [19]; Thermes River, Thermes

Paranesti, alt. 600 m [20]; "Haradra 14", alt. 720 m [21]; Anthero, Elatia Forest, alt. 1330 m [22]; Gioumourlou, Elatia Forest, alt. 1400 m [23]; "Kentrika Dasarhiou", Elatia Forest, alt. 1000 m [24]; Stavrorema River, Elatia Forest, 1300 m [25]; Lefkouda, 1400 m [26]; Kallikarpo, near Elatia Forest, alt. 650 m [27]; Skaloti, alt. 940 m [28]; Epovrichiou, near Pappades, alt. 340 m [29] (ASIMAKOPOULOS, 1994b); Elatia area, in pond next to River Vathyrema, alt. 1350 m [30] (BOUSBOURAS et. al., 1997).

Original data

Bulgaria: 5 ad, Zdravets Hut, alt. 1180 m, 11.5.1963, G. Bachvarov [31]; 2 ad, Ruen Hut, alt. 1215 m, August 1959, G. Bachvarov [12]; 2 ad, Studenets area, Chernatisa Ridge, July 1960, G. Bachvarov [32]; Peshtera, alt. 350 m, 15.4.1963, G. Bachvarov [33]; Hvoyna, alt. 750 m, 17.7.1987, M. Vlašin pers. comm. to VB [34]; Mostovo, alt. 950 m, 14.7.1987, M. Vlašin pers. comm. to VB [35]; several larvae, in ponds, Yundola, alt. 1370 m, 25.6.1994, VB [3]; several larvae, 4 km before Bezvodno from Zhenda, alt. 500 m, 25.7.2001, VB [36]; Varbina, along Arda River, alt. 600 m, 12.10.1998, VB [37]; Stoyanovo, 3 km E of Stoyanov Most Bridge, alt. 550 m, 30.7.1999, VB & BP [38]; several larvae and adults, surroundings of Manastir, alt. 1500-1600 m, 22.7.2001, VB [39]; 2 ad, Prespa Hut, alt. 1780 m, 22.7.2001, VB [40]; 2 ad., 1.5 km and 1 km S of Prespa Summit, alt. 1800 m, 22.7.2001, VB [41]; over 20 ad., along the road between Teshel and Orfei Hut, alt. 1000-1300 m, October 1973, VB [42]; 1 ad, KOR, entrance of Devin, alt. 700 m, 24.4.2002, VB [43]; Grohotno, alt. 850 m, 31.3.1986, VB & L. Prekrutov [44]; Momchilovtsi, alt. 1200 m, October 1968, VB [45]; between Bostina and Smolyan (Ustovo), alt. 850 m, 26.6.1993, VB [46]; 31 ad, on the trail between Bachkovski Monastery and Biosphere Reserve Chervenata Stena, alt. 450-900 m, 11.4.1959, VB & P. Beron; idem, 5 ad, 20.10.2003, GP [47]; 3 km before Fotinovo from Nova Mahala, alt. 1350 m, 8.6.1981, VB & D. Jameson [48]; 2 km above Bratsigovo towards Ravnogor, alt. 750 m, July 1980, VB [49]; 1 ad, KOR, junction to Boykovo 5 km S of Hrabrino, alt. 800 m, July 1980, VB [50]; several larvae, between Lyaskovo and Devin, alt. 1000 m, 26.9.2003, VB [51]; Mihalkovo, alt. 600 m, 26.9.2003, VB [52]; 1 ad., River Lepenitsa, 3 km S of Velingrad, alt. 900 m, 30.6.1994, NTz [53]; 18 ad., on the road between Dospat towards Shiroka Polyana Dam, alt. 1250 m, 30.4.2001, NTz [54]; 4 ad., below Chairskite Lakes, alt. 1200-1400 m, 29.4.2001, NTz [55]; 2 larvae, Krichim, Izgoryaloto Gyume Reserve, alt. 450-500 m, 1.7.2004, NTz [56]; 1 ad, junction to Gyovren, between Teshel and Trigrad, alt. 950 m, June 2005, S. Beshkov [57]; 1 ad. KOR, 2 km before Mostovo, alt. 900 m, 26.10.1991, BP & P. Stoev [58]; 1 ad., Koupena Reserve, rock niche close to Snezhanka Cave, alt. 860 m, 23.11.1991, BP [59]; 1 ad., Hut Orfei above Borino, alt. 1100 m, 3.8.1997, BP [60]; 1 ad., on the road between Chala and Borino, alt. 1350 m, 3.8.1997, BP [61]; 1 ad., climbing site Bryanovshtitsa above Hrabrino, 750 m, 12.4.1999, BP [62]; 20 larvae, disused mine gallery, Enyovche, Muratovska Mahala, alt. 700 m, 29.8.2001, BP & VB [63]; 1 juv. between Mihalkovo and Devin, 650 m, 1.9.2001, BP & VB [64]; 7 ad, KOR, between Belitsa and Zagrazhden, alt. 850-1000 m, 22.7.2001 and 18.10.2001, BP & VB [65]; 10 ad, KOR, between Yavrovo and Dobraluk, alt. 900-1000 m, 22.10.2001, BP & VB [66]; 4 larvae, 6 km W of Dospat along the southern bank of the dam, alt. 1230 m, 16.6.2002 , BP & HS; idem. 2 ad, 11.5.2005, BP & NTz [67]; 4 ad., KOR, between Trigrad and Teshel, alt. 950-1000 m, 11.5.2005, BP & NTz [57]; 1 ad., 2 km before Vodni Pad from Trigrad, alt.

1250 m, 18.9.2005, BP [68]; 1 ad. Kesten, in Forgovo cave, Forgovo Dere, alt. 1360 m, 18.9.2005, BP [69]; over 10 spec. KOR, between Smolyan and the pass before Mugla, alt. 1000-1400 m, 19.9.2005, BP [70]; 2 ad., along a dirt road 1.5 km and 2.5 km from Djurkovo, alt. 1250 m, 19.10.2001, VB & BP; 3 ad., idem, 8.10.2005, BP [71]; 1 ad, Laki, at the entrance of a mine gallery, alt. 700 m, 9.10.2005 BP [72]; 1 ad., near Boykovo, Sindjok Range, alt. 1220 m, 10.6.2004, GP & O. Todorov [73]; 1 ad., near Boykovo, Druma Range, alt. 1150 m, 6.7.2004, GP & O. Todorov [74]; 6 ad., south of Koritata, Tsigansko Gradishte, alt 1600 m, 2.9.2005. GP [75]; 1 ad., under stone on the top of Malkoto Chengene, Tsigansko Gradishte, alt. 1763 m, 3.9.2005, GP [76]; 1 m, 3 ad., under stone on a dirt road between Koritata and Tsigansko Gradishte (Chengeneto), alt. 1350 m, 4.9.2005, GP & D. Plachiyski [77]; 1 ad., near Marzyan, alt. 900 m, 5.9.2005, GP [78]; 14 ad., at 1 hour walking distance on the road Boykovo–Dedevo, alt. 1100–1150 m, 10.10.2005, GP & O. Todorov [79].

Greece: 2 ad., KOR, on the road 3 km N of Thermia Paranestiou, alt. 850 m, 15.5.1998, HS [80]; >10 larvae, forest brooklet 10 km N of Thermia Paranestiou, alt.1050 m, 15.5.1998, HS [81]; 1 subad., under stone in 'Paranesti Virgin Forest' (60 km N of Paranesti), alt. 1000 m, 15.5.1998, HS [82]; 5 larvae, brooklet near road bifurcation 11 km W of 'Base Camp' of 'Paranesti Virgin Forest', alt. 950 m, 22.5.2004, HS [83]; 1 ad., 17 km W of 'Base Camp' of 'Paranesti Virgin Forest', alt. 1200 m, 23.5.2004, HS [84]; 3 larvae, brooklet along road 7 km W of 'Base Camp' of 'Paranesti Virgin Forest', alt. 1090 m, 23.5.2004, HS [85]; 5 larvae, in Kalydorema brooklet, 9 km W of 'Base Camp' of 'Paranesti Virgin Forest', alt. 1110 m, 24.5.2004, HS [86].

The Fire Salamander is the most common tailed amphibian in the Western Rhodopes (62 localities in Bulgaria, 24 in Greece) due to the great availability of moist forests throughout the mountain. A map of distributioin is not provided because the occurrence of the species is nearly discontinuous though in some areas its occurrence is not supported by field data. The highest record comes from Prespa Summit in Bulgaria at 1800 m.

***Triturus alpestris* (Laurenti, 1768)**

Published data

Bulgaria: Kolibishka Reka before Beglika forest lodge 1500 m, 24.6.1921, 26.5.1929, 23.5.1932 [1]; above Smolyan, Smolyanski Lakes, alt. 1400 m, July 1939 [2] (BURESCH & ZONKOW 1941); Yundola Site, alt. 1350 m [3]; 3 ad, near Zdravets Hut, alt. 1180 m, 10.6.1963, G. Bachvarov [4] (BESHKOV, 1985); Orfei Hut above Borino, Topliya Izvor Site, alt. 1190 m, 1992, T. Ivanova [5]; Djenevra Site, between the dams Golyam Beglik and Shiroka Polyana, alt. 1600 m, 10.6.1993, D. Vesselinov [6] (BESHKOV & NANEV, 2002).

Greece: 3 ad, Elatia area, pond next to river Vathyrema, alt. 1350 m [7] (BOUSBOURAS et. al., 1997).

Original data

Bulgaria: Studenets area, Chernatisa Ridge, alt. 1400 m, July 1960, G. Bachvarov [8]; Dospat Dam, alt. 1200 m, 10.7.1987, M. Vlašin pers. comm. to VB; 1 ad, KOR, 6 km W of Dospat along the southern bank of the dam, alt. 1230 m, 16.6.2002, HS & BP; idem., 6 ad. after breeding, 11.5.2005, BP & NTz [9]; several ad., Golyam Beglik Dam (formerly Vassil Kolarov Dam), alt. 1550 m, Autumn 1954, Y. Gorelov [10]; 16 ad., in ponds at Lasov Chark area, Suvarla Tepe, 5-6 km N of Hut Orfei above Borino, alt. 1200 m, 10.6.1993, D. Vesselinov [11].

Greece: 1 m, collected near Skaloti, April 1998, Ben Hallmann, in May 1998 identified by HS [12]

The Alpine Newt is amongst the amphibians with the highest conservation importance for the Western Rhodopes because of its relict occurrence. The distribution of this newt is scattered throughout the region and its abundance varies between more or less allopatric localities (Fig. 1). After VESSELINOV (1994) and our assessments, the status of the Bulgarian populations at Yundola, Lasov Chark and Dospat Dam is "very good". The status at Djenevra (between the dams Golyam Beglik and Shiroka Polyana) and Smolyanski Ezera is "good" but demands special awareness because of fish introductions and chemical pollutions. Under question or "data deficient" is the situation at Beglika Dam, Golyam

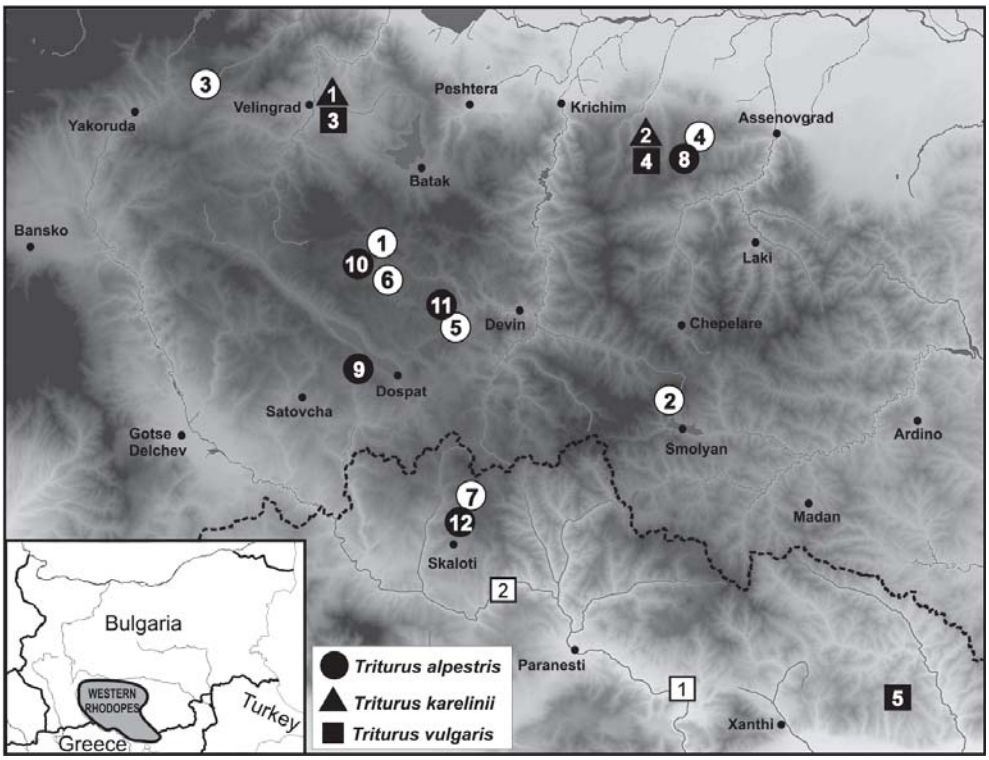

Fig. 1. Distribution of *Triturus alpestris*, *T. karelinii* and *T. vulgaris*.

Beglik Dam, Toplia Izvor, Zdravets Hut and Studenets sites. The status of the populations in Greece is hard to access due to the limited amount of field records and the obvious rarity of the species. Newt populations are mostly affected by habitat alterations (drainage, pumping, etc.), local pollution, eutrophication and fish introductions. Roads have minor importance though locally they could increase the overall mortality.

***Triturus karelinii* (Strauch, 1870)**

Published data

Greece: 8 ad, Livera, 400 m^2 cement reservoir [1]; 12 ad, Livera, 300-350 m^3 artificial earthen reservoir (as *T. cristatus karelinii*) [1] (BOUSBOURAS & BOURDAKIS, 1997).

Original data

Bulgaria: 1 ad., flooded areas near Matnitsa River, E of Velingrad, alt. 750 m, 4.7.1994, NTz [2]; 2 ad., in ponds near Boykovo, Sindjok Range, alt. 1220 m, 10.6.2004, GP & O. Todorov [3].

The Balkan Crested Newt is undoubtedly a rare species in the Western Rhodopes (Fig. 1). Its occurrence in Greece was suspected by ASIMAKOPOULOS (1994b) and proved with the findings of BOUSBOURAS & BOURDAKIS (1997) [1]. In order to ensure the survival of the species in the Greek Rhodopes Mt., the latter authors proposed creation of a network of artificial ponds.

***Triturus vulgaris* (Linnaeus, 1758)**

Published data

Greece: Stavroupolis, alt. 100 m [1]; Dam of Thisavros, alt. 300 m [2] (ASIMAKOPOULOS, 1994b).

Original data

Bulgaria: 3 ad., flooded areas near Matnitsa River, E of Velingrad, alt. 750 m, 12.7.1993, 29.6.1994, NTz [3]; 5 ad., 10 larvae, in ponds near Boykovo, Sindjok Range, alt. 1220 m, 10.6.2004, GP & O. Todorov [4].

Greece: 1 m, brooklet near Tangeo, 10 km north of Iasmos, alt. 100 m, 20.5.2004, HS [5].

The Smooth Newt was found in the same ponds as the Balkan Crested Newt in the Bulgarian Western Rhodopes (Fig. 1). The few records from Greece probably do not reveal its actual distribution. The samples from the Bulgarian Rhodopes belong to the nominate *T. vulgaris vulgaris.*

***Bufo bufo* (Linnaeus, 1758)**

Published data

Bulgaria: near Varvara [1] (HRISTOVICH, 1892); 1 ad, Dobrostan, Martsiganitsa Hut, entrance of Topchika Cave, alt. 990 m, 28.5.1968 [2] (BESHKOV 1972a).

Greece: Monastery of Panagia, N of Xanthi, alt. 150 m [3]; Kossinthos River near Pillima, alt. 220 m [4]; Thermes of Ehinos, alt. 470 m [5]; "Filakio [1] 42" on Sakorema River, Dimarion, alt. 500 m [6]; Likodromion, alt. 390 m [7]; Stavroupolis, alt. 100 m [8]; Levadetes, alt. 1200 m [9]; Paranesti, alt. 120 m [10]; Oxios River near Prasinada, alt. 600 m [11]; Dipotama, alt. 640 m [12]; Pefki near Zarkadia, alt. 800 m [13]; Dam of Thisavros, alt. 300 m [14]; Thermes River, Thermes Paranesti, alt. 600 m [15]; Pistola, Elatia Forest, alt. 1450 m [16]; Stavrorema River, Elatia Forest, alt. 1300 m [17]; Epovrichiou, near Pappades, alt. 340 m [18] (ASIMAKOPOULOS, 1994b).

Original data

Bulgaria: 1 ad, Mostovo, entrance of Gargina Dupka Cave, alt. 905 m, March 1968, VB & P. Beron [19]; Mostovo, 14.7.1987, M. Vlašin pers. comm. to VB [19]; Dospat Dam, alt. 1200 m, 10.7.1987, M. Vlašin pers. comm. to VB [20]; Bachkovski Monastery, alt. 400 m, 16.7.1987,

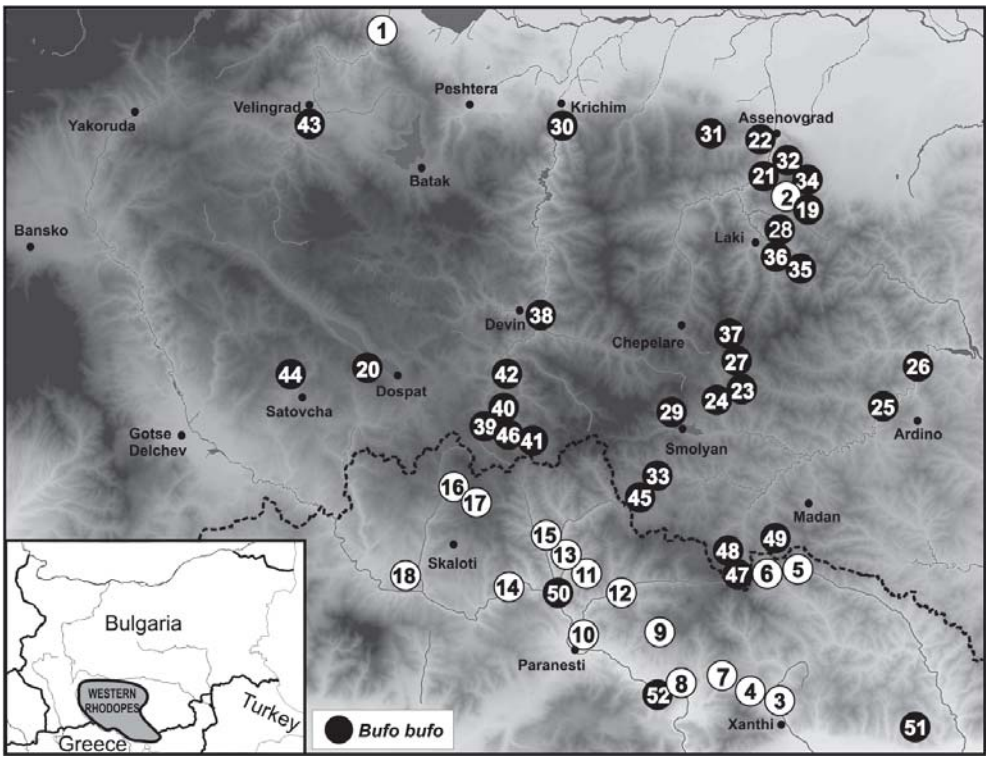

Fig. 2. Distribution of *Bufo bufo*.

M. Vlašin pers. comm. to VB [21]; Assenovgrad, Assenova Krepost Castle, alt. 450 m, 17.7.1987, M. Vlašin pers. comm. to VB [22]; Momchilovtsi, alt. 1200 m [23]; Sokolovtsi, alt. 1100 m, oral comm. to VB [24]; 4 ad, between Stoyanov Most Bridge and Dyavolskiya Most Bridge, along Arda River, alt. 520 m, August 1999, VB & BP [25]; 3 ad, between Dyavolskiya Most Bridge and castle close to Bashevo, along Arda River, alt. 500 m, August 1999, VB & BP [26]; 1 ad, KOR, 1.5 km from Hut Momchil Yunak towards Laki, alt. 1400 m, 23.7.2001, VB [27]; 1 ad, Borovo, Krastova Gora, alt. 1350 m, 22.7.2001, VB [28]; Smolyan, on the road towards Smolyanski Lakes, alt. 800-900 m, July 1985, VB [29]; 1 ad., KOR, Krichim Dam, 1.5 km from the wall towards Krichim, alt. 420 m, July 1985, VB [30]; 2 ad, Hut Zdravets, alt. 1180 m, 11.5.1963, G. Bachvarov [31]; 1 ad, Dobrostan, alt. 1220 m, 10.6.1961, G. Bachvarov [32]; 1 ad. KOR, Koshnitsa, alt. 900 m, 18.8.1991, BP [33]; 1 ad. ssp. *bufo*, KOR, junction to Mostovo on the road to Vrata, alt. 1000 m, 26.10.1991, BP & P. Stoev [34]; many juv., Belitsa, Gyumberdjiyata, alt. 800 m, 20.8.2001, BP & VB [35]; 2 ad, KOR, 2 km before Belitsa, alt. 750 m, 18.10.2005, BP [36]; 1 ad. KOR, 2 km from the junction to Hut Elitsa towards Laki, alt. 1550 m, 30.8.2001, BP & VB [37]; 1 ad. KOR, Devin, Zabrala, 700 m, 1.9.2001, BP & VB [38]; 3 ad. under stones, 6 km west of Dospat along the southern bank of the dam, alt. 1230 m, 16.6.2002, BP & HS; idem. over 40 spec., 6 in copulation, 11.5.2005, BP & NTz [20]; 2 ad. aff. *spinosus*, KOR, 2-3 km north of Buynovo, alt. 1300 m, 17.6.2002, BP & HS [39]; 2 ad., KOR, 1 km before Yagodina, alt. 1075 m, 17.9.2005, BP [40]; 2 ad., KOR, between Trigrad and Kesten, 1220 m, 18.9.2005, BP [41]; 2 ad., KOR, between Giovren and Teshel, 950 m, 18.9.2005, BP [42]; 5 ad., River Lepenitsa, 3 km S of Velingrad, alt. 900 m, 30.6.1994, NTz [43]; 1 calling male, Valley of River Bistritsa, 4 km N of Satovcha, alt. 1100 m, 30.4.2001, NTz [44]; many larvae, River Sushitca, before Mostovo, alt. 720–800 m, 2.7.2004, NTz [19]; 1 ad., Mogilitsa, at the entrance of Cave Uhlovitca, alt. 1040 m, 4.7.2004, NTz [45]; 1 f, SW of Trigrad, alt. 1420 m, 15.4.2005, GP & D. Plachiyski [46]; 1 ad., KOR, S of Koritata, Tsigansko Gradishte, alt 1550 m, 2.9.2005, GP [47]; 1 ad., KOR between Koritata and Tsigansko Gradishte (Chengeneto), alt. 1100 m, 4.9.2005, GP & D. Plachiyski [48]; 1 f, near Marzyan, alt. 900 m, 5.9.2005, GP [49].

Greece: 3 ad, KOR, on the road between Paranesti and Thermia Paranestiou, alt. 300-500 m, 15.5.1998, HS [50]; 1 f, KOR, on the road in Paranesti, alt. 165 m, 24.5.2004, HS [10]; 1 ad., KOR, on the road in Iasmos, alt. 30 m, 8.6.2004, HS [51]; 1 ad., KOR, on the road along Nestos (Mesta) River 1.5 km SW of Stavroupoli, alt. 95 m, 3.7.2005, HS [52].

Common Toads were found killed on almost every paved road in the Western Rhodopes, where field surveys were carried out. We presume that it occurs more or less continuously in the studied region (Fig. 2). The highest record comes from 1550 m [37].

***Bufo viridis* Laurenti, 1768**

Published data

Bulgaria: 1 ad., near Bachkovski cloister (Bachkovski Manastir), alt. 450 m, 28.7.1931 [1]; 1 spec., Ayazmoto near Momchilovtsi, 11.6.1935 [2] (BURESCH & ZONKOW, 1942); between Ruen Hut and Zdravets Hut, alt. 1200 m [3] (ANGELOV & KALCHEV, 1961).

GREECE: "Meseoniki Gefira" near Polyanthon, alt. 100 m [4]; Monastery of Panagia, N of Xanthi, alt. 150 m [5]; Thermes of Ehinos, alt. 470 m [6]; Kossinthos River near Pillima, alt. 220 m [7]; Likodromion, alt. 390 m [8]; Stavroupolis, alt. 100 m [9]; Paranesti, alt. 120 m [10]; Dam of Thisavros, alt. 300 m [11] (ASIMAKOPOULOS, 1994b).

Original data

BULGARIA: 1 ad, KOR, on the road 2 km S of Peshtera, alt. 500 m, 1961, VB [12]; junction to Filipovo, Mesta River Valley, alt. 700 m, 6.6.1986, VB [13]; between Devin (Nastan) and junction to Shiroka Laka, alt. 720 m, 19-20.5.1977, VB & D. Jameson [14]; 1 ad., KOR, on the road between Mihalkovo and Devin, alt. 600-700 m, 25.4.2002, VB [15]; several calling males, Devin, Zabrala area, alt. 700 m, 24.4.2002, VB [16]; Varvara, alt. 450 m, the thermal baths, 21.5.1972, VB [17]; 1 ad, KOR, between Laki and junction to Belitsa, alt. 650 m, 22.7.2001, VB [18]; 1 ad, Vrata, Belin Tash Site, alt. 1200 m, 29.6.2000, BP [19]; 2 ad, Stoyanovo, Stoyanov Most Bridge, alt. 600 m, 3.8.1999, VB & BP [20]; 1 ad, 5 km downstream from Stoyanov Most Bridge along Arda River, alt. 550 m, 3.8.1999, VB & BP [21]; 2 ad., under stones above Purvenets, alt. 280 m, 4.4.1991, BP [22]; 4 ad., KOR on the road along the southern bank of Dospat Dam, alt. 1320 m, 14.8.1991, BP [23]; 1 ad, KOR, Koshnitsa, alt. 900 m, 18.8.1991, BP [24]; 2 ad, KOR, below Bryanovshtitsa hut, alt. 1000 m, 29.9.1991, BP [25]; 3 ad, KOR between Teshel and Trigrad, alt. 900-1000 m, 16.8.1991, BP [26]; 1 ad, on the road between Ablanitsa

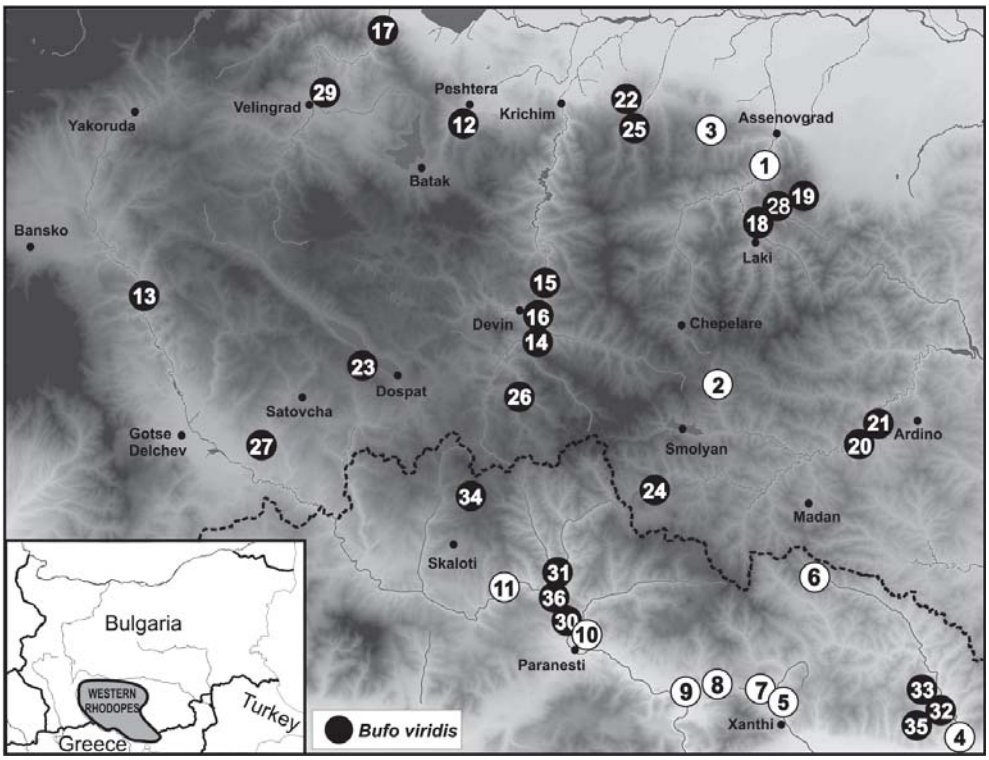

Fig. 3. Distribution of *Bufo viridis*.

and Blatska, alt. 450 m, t= 0ª C, snowing, 10.3.1998, BP [27]; 1 ad, below Mostovo, at the entrance of Vodnata Peshtera Cave, alt. 850 m, 21.10.2001, BP & VB [28]; ca. 20 spec., surroundings of Velingrad, alt. 700-850 m, July 1993, 6.7.1994, NTz [29].

Greece: 2 ad., KOR, on the road N of Paranesti, alt. 100-200 m, 15.5.1998, HS [30]; 1 ad., KOR, on the road 10 km N of Paranesti, alt. 300 m, 15.5.1998, HS [31]; 1 m, calling in Kompsatos River near Tangeo, 10 km N of Iasmos, alt. 100 m, 19.5.2004, HS [32]; >100 larvae, in brooklet near Tangeo, 10 km N of Iasmos, alt. 100 m, 20.5.2004, HS [33]; >50 larvae, in pool on the road, 3 km NE of Elatia, alt. 1530 m, 23.5.2004, HS [34]; 1 f, KOR, on the road 5 km N of Iasmos, alt. 230 m, 7.6.2004, HS [35]; 1 ad., KOR, 8 km N of Paranesti, alt. 260 m, 7.7.2005, HS [36].

The highest locality of the Green Toad from the Western Rhodopes was found in the region of Elatia (Greece) at 1530 m a.s.l. We presume that the species was overlooked during the research trips and its distribution is far more continous (especially at lower altitudes) than it appears on the map (Fig. 3).

Hyla arborea (Linnaeus, 1758)

Published data

Greece: "Meseoniki Gefira" near Polyanthon, alt. 100 m [1]; Stavroupolis, alt. 100 m [2]; Paranesti, alt. 120 m [3]; Dam of Thisavros, alt. 300 m [4]; Vathyrema River near Height Tsakalos, Elatia Forest, alt. 900 m [5] (ASIMAKOPOULOS, 1994b).

Original data

Bulgaria: above Hvostyane, alt. 475 m, 10.5.1966, VB [6]; calling males, Mihalkovo, the cemetery, alt. 570 m, 25.4.2002, VB [7]; calling males, Devin, Zabrala area, 700 m, 24.4.2002, VB [8]; calling males, Smolyan, Smolyanski Lakes, alt. 1400 m, July 1977, VB & D. Jameson; idem, July 1985, VB [9]; above Peshtera, alt. 400 m, 1963, 1965, 1995, VB [10]; tadpoles and juveniles, in ponds, Vrata, Belin Tash site, alt. 1200 m, 24.7.2001, VB [11]; Srednogortsi, mouth of Cherna River, alt. 650 m, 9.10.1998, VB [12]; calling males, Laki, downtown, alt. 650 m, 22.7.2001, VB [13]; Bachkovo, Ayasmoto above Bachkovski Monastery, alt. 450 m, 9.5.2002, VB & K. Nanev [14]; Chairski Lakes, alt. 1480 m, 12.6.1992, D. Vesselinov [15]; 1 calling male, Chepelare, exit towards Pamporovo, alt. 1150 m, 1.8.1985, VB & D. Dobrev [16]; Velingrad, downtown, alt. 850 m, 9.6.1981, VB & D. Jameson [17]; southernmost point of Batak Dam, alt. 1125 m, September 1973, VB [18]; Mogilitsa, alt. 950 m, July 1985, VB [19]; between Teshel and Grohotno, alt. 900 m, 31.3.1986, VB & L. Prekrutov [20]; calling males, 5 km from Belovo towards Yundola, alt. 700 m, 25.6.1994, VB [21]; calling males, near Matnitsa River E of Velingrad, alt. 750 m, 14.7.1993, NTz [22]; Draginovo, alt. 800 m, 16.7.1993, NTz [23]; 1 spec., Rakitovo, alt. 800 m, 3.7.1994, NTz [24]; 1 spec., Smolyan, alt. 650 m, 18.07.1997, NTz [25]; 1 ad., 6 km west of Dospat along the southern bank of the dam, alt. 1230 m, 16.6.2002, BP & HS [26]; 2 ad., between Parvenets and Hrabrino, in the valley of Parvenetska River, alt. 270 m, 25.9.2005, GP & I. Mollov [27].

Greece: 1 m, along Nestos (Mesta) River 4 km N of Paranesti, alt. 250 m, 14.5.1998, HS [28]; 2 m, calling in Kompsatos River near Tangeo, 10 km N of Iasmos, alt. 100 m, 19.5.2004, HS [29].

Although Common Tree Frogs were rarely reported during the field surveys, we presume that it is not a rare species in the mountain.

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

Published data

Bulgaria: near river Vacha, above Krichim [1]; along the road from Stanimaka (now Assenovgrad) to Hvoyna and Chepelare, especially in a small pond above Hvoyna, alt. 1000 m, 30.7.1931 [2]; 3 spec., below Karamandja Summit (now Snezhanka Summit), alt. 1800 m, 30.7.1930 [3]; 1 spec., 7 sp., near Sokolovtsi [4]; near Satovcha and Slashten, 29.8.1934, 2.6.1936 [5-6] (BURESCH & ZONKOW, 1942); above Peshtera [7] (ANGELOV & KALCHEV, 1961).

Greece: Monastery of Panagia, N of Xanthi, alt. 150 m [8]; Miki, alt. 280 m [9]; Ehinos, alt. 380 m [10]; "Filakio 1 42", on Sakorema river, Dimarion, alt. 500 m [11]; Thermes of Ehinos, alt. 470 m [12]; Likodromion, alt. 390 m [13]; Kalithea, alt. 750 m [14]; "Palea Sinantisi", Haidou Forest, alt. 1250 m [15]; "Filakio Haidou", Haidou Forest, alt. 1400 m [16]; Thermal springs of Ehinos, alt. 300 m [17]; Levadetes, alt. 1200 m [18]; "Gefira Leonida", Arkoudorema River, Haidou Forest, alt. 1000 m [19]; Stavroupolis, alt. 100 m [20]; Paranesti, alt. 120 m [21]; Oxios River near Prasinada, alt. 600 m [22]; Dipotama, alt. 640 m [23]; Lepidas, alt. 1440 m [24]; Likopoulo, alt. 1550 m [25]; Stamna, alt. 1200 m [26]; Pefki near Zarkadia, alt. 800 m [27]; "Gefira Pharasinos", Pharasinos River Valley, alt. 400 m [28]; Georgiadis Stream, Thisavros, alt. 300 m [29]; Thermes River, Thermes Paranesti, alt. 600 m [30]; "Haradra 14", alt. 720 m [31]; "Likolikos", Paranesti Virgin Forest, alt. 1650 m [32]; "Distropi Haradra" near Paranesti Virgin Forest, alt. 1200 m [33]; Anthero, Elatia Forest, alt. 1330 m [34]; "Kentrika Dasarhiou", Elatia Forest, alt. 1000 m [35]; Vathyrema River near Height Tsakalos, Elatia Forest, alt. 900 m [36]; "Trizenitsa" at Vathyrema River, Elatia Forest, alt. 880 m [37]; Lefkouda, alt. 1400 m [38]; Kallikarpo, near Elatia Forest, alt. 650 m [39]; Skaloti, alt. 940 m [40]; Epovrichiou, near Pappades, alt. 340 m [41]; Potami, alt. 390 m [42] (ASIMAKOPOULOS, 1994b); Elatia area, in a pond next to River Vathyrema, alt. 1350 m [36] (BOUSBOURAS et. al., 1997).

Original data

Bulgaria: between the huts Ruen and Zdravets, alt. 1200 m, October 1995, VB [43]; many ad, 4-5 km before Bezvodno from Zhenda, alt. 500 m, 26.7.2001, VB [44]; abundant, Trigrad, Hut Trigradski Skali, alt. 1000 m, June 2005, S. Beshkov [45]; 1 ad., KOR between Teshel and Trigrad, alt. 900 m, 16.8.1991, BP [46]; 10 ad., Trigrad, stream in Suhiya Dol on the road to Kesten, alt. 1150 m, 3.6.2000, BP [47]; 3 ad., below Mostovo close to Vodnata Peshtera Cave, alt. 850 m, 21.10.2001, BP & VB; idem., many

ad., 720–800 m, 2.7.2004, NTz [48]; 20 ad., in ponds above Perushtitsa, Manastira, alt. 400 m, 7.5.2002, BP [49]; 12 ad., Krichim, Izgoryaloto Gyume Reserve, alt. 450-500 m, 1.7.2004, NTz [50]; 7 ad., Zhenda, Zhenda Reserve, alt. 750 m, 1.7.2004, NTz [51]; 1 ad., in a small pond near Kiselichkovo, alt. 1150 m, NTz [52]; 4 ad., 3 juv., between Parvenets and Hrabrino, in the valley of Parvenetska River, alt. 270 m, 25.9.2004, GP & I. Mollov [53]; 11 ad., Golyamoto Burdo between Devin and Stomanovo (7 km from Devin), alt. 890 m, 20.5.2005, GP & D. Plachiyski [54]; 5 ad., in ponds near Boykovo, Druma Range, alt. 1150 m, 6.7.2004; GP & O. Todorov [55]; 4 ad., in ponds near Osikovo, alt. 1200 m, 10.7.2005, GP & O. Todorov [56]; 5 ad., in ponds 1 km before Selcha, alt. 1150 m, 10.7.2005, GP & O. Todorov [57]; 6 ad., 4 juv., in ponds near Elhovska River, 1.5 km from Plovdivtsi, alt. 950 m, 12.8.2005, GP & S. Avramov [58]; 5 ad., 15 juv., in Erma River near Marzyan, alt. 850 m, 5.9.2005, GP [59]; locally very abundant in Arda River between Srednogortsi and Dam Kardjali Dam, 700-450 m, 1999, VB & BP [60].

Greece: 3 ad., brooklet near Kompsatos River 8 km N of Iasmos, alt. 130 m, 13.5.1998, HS [61]; 2 m, brooklet along road, 12 km N of Paranesti, alt. 300 m, 15.5.1998, HS [62]; >10 ad., brooklet near road bifurcation at 11 km W of 'Base Camp' of 'Paranesti Virgin Forest', alt. 950 m, 22.5.2004, HS [63]; 3 ad., in a pool on the road, 14 km W of 'Base Camp' of 'Paranesti Virgin Forest', alt. 1015 m, 22.5.2004, HS [64]; 1 m, in pool on road, 12 km W of 'Base Camp' of 'Paranesti Virgin Forest', alt. 900 m, 23.5.2004, HS [65]; 5 ad., brooklet along road, 7 km W of 'Base Camp' of 'Paranesti Virgin Forest', alt. 1090 m, 23.5.2004, HS [66]; 3 ad., brooklet in 'Paranesti Virgin Forest', alt. 1145 m, 4.7.2005, HS [67]; 5 ad., pools on the road in 'Paranesti Virgin Forest', alt. 1000 m, 6.7.2005, HS [68].

The Fire-belied Toad was found to occur in a wide altitudinal range up to 1800 m a.s.l. (Karamandja Summit, now Snezhanka Summit[3]). This is amongst the highest known records of this toad in Bulgaria. In the Greek Rhodopes it was found up to 1550 m a.s.l. [25].

Rana graeca Boulenger, 1891

Published data

Bulgaria: River Pashmakliyska near Pashmaklyi (now Smolyan), alt. 760 m [1] (MÜLLER, 1934); 4 spec., River Bistritsa, near Slashten, alt. 500 m, 4.6.1936, 26.4.1936 [2]; 2 spec., River Mesta, tributaries near Tuhovishta, 2.6.1936 [3] (BURESCH & ZONKOW, 1942); Mostovo [4] (ANGELOV & KALCHEV, 1961); Bachkovo, Bachkovski Monastery, alt. 450 m [5]; 5 spec., Parvenetska River, 2-3 km above Hrabrino, alt. 350 m, 1.10.1963 [6] (SABEVA, 1965); Narechen, Narechenski Bani, alt. 600, 1.8.1948, V. Petrov [7] (BESHKOV, 1961); Smolyan, alt. 600 m, 9.9.1967, A. Nikolov [1] (BESHKOV, 1970); 1 ad, in a small brook, 18 km S of Krichim, alt. 550 m, 4.9.1969, VB [8]; near Bachkovski Monastery, alt. 450 m, 10.7.1967 [5]; near Slaveyno, alt. 1000 m, summer of 1964, G. Bachvarov [9]; Hut Zdravets, alt. 1180 m, 1.5.1963, G. Bachvarov [10]; 1-2 km after the junction towards Chudnite Mostove Hut from the road to Zabardo, alt. 1150 m [11] (BESHKOV, 1972à, b); junction to Zabardo on the road to Chepelare, alt. 820 m [12] (BESHKOV, 1972b);

8 spec., Davidkovo, 1000 m, 1968 [13]; 2 ad, Zdravets Hut, alt. 1180 m, 11.5.1963, G. Bachvarov [10] (BATCHVAROV et al., 1973).

Greece: Arkoudorema River near Paranesti, alt. 300 m [14]; Anthero in Elatia Forest, alt. 1330 m [15] (ASIMAKOPOULOS & SOFIANIDOU, 1987); Thermes of Echinos, alt. 470 m [16]; "Filakio 1 42", Sakorema River near Dimarion, alt. 500 m [17]; Likodromion, alt. 390 m [18]; Levadetes, alt. 1200 m [19]; Oxios River near Prasinada, alt. 600 m [20]; Dipotama, alt. 640 m [21]; Pefki near Zarkadia, alt. 800 m [22]; Platanorema near Zarkadia, small river, alt. 600 m [23]; Thermes River, Thermes Paranesti, alt. 600 m [24]; Georgiadis'stream, Thisavros, alt. 300 m [25]; Anthero in Elatia Forest, alt. 1330 m [15]; Height Tsakalos, Elatia Forest, alt. 1500 m [26]; Kallikarpo near Elatia Forest, alt. 650 m [27]; "Epovrichiou" at Nestos River near Pappades, alt. 340 m [28] (ASIMAKOPOULOS, 1994a).

Original data

Bulgaria: Yugovo, alt. 750 m, 13.7.1987, M. Vlašin pers. comm. to VB [29]; Mostovo, alt. 950 m, 14.7.1987, M. Vlašin pers. comm. to VB [4]; 2 ad, Hut Akademik (formerly Rodopski partizanin hut), alt. 590 m, October 1985, VB [30]; 2 ad, Dyadovtsi, Dyavolskiya Most Bridge, alt. 540 m, August 1999, VB & BP [31]; 1 ad, 2 km downstream of Dyavolskiya Most Bridge in Arda River Valley, alt. 520 m, August 1999, VB & BP [32]; 1 ad, mouth of Davidkovska Arda River, alt. 400 m, August 1999, VB & BP [33]; Davidkovo, alt. 1000 m, Spring of 1971,

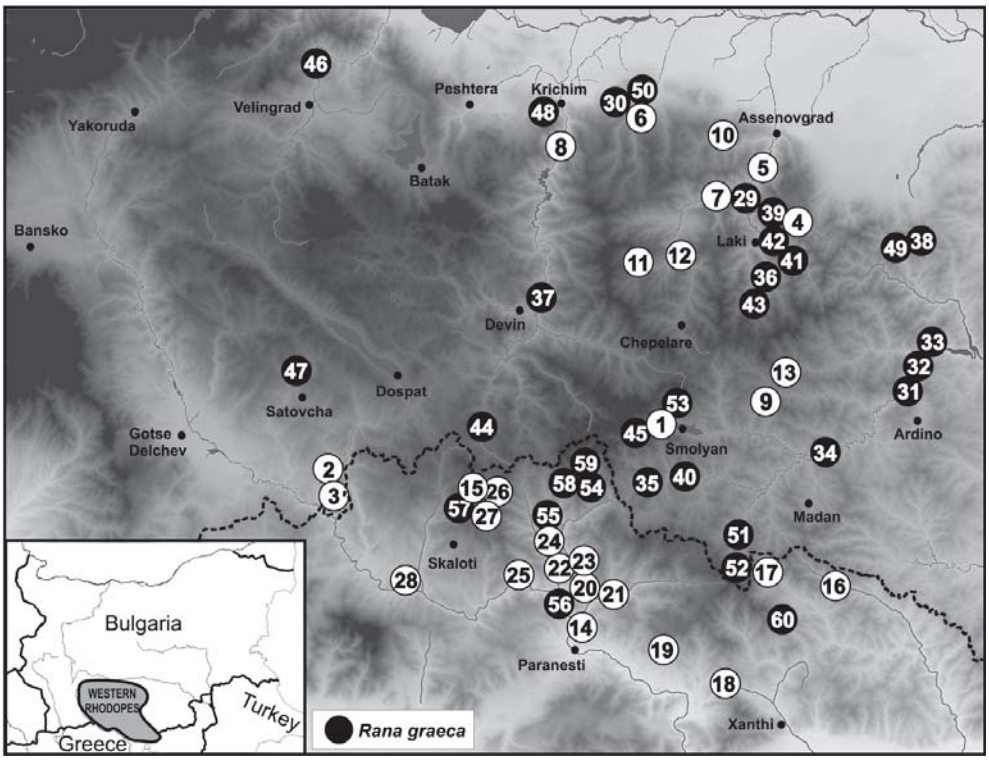

Fig. 4. Distribution of *Rana graeca*.

P. Popov, pers. comm. to VB [13]; Diralo, 500 m above Arda River, alt. 620 m, 11.10.1998, VB [34]; 1 ad, Mogilitsa, entrance of Uhlovitsa Cave, alt. 1040 m, 6.8.1999, VB & BP [35]; 1 ad, in a brook 7 km S of Laki towards Manastir, alt. 950 m, 22.7.2001, VB [36]; 1 ad, 4 km from Devin towards Mihalkovo, alt. 680 m, October 2001, VB & BP [37]; 2 ad, 4-5 km before Bezvodno from Zhenda, alt. 500 m, 26.7.2001, VB [38]; 2 ad., entrance of the Cave Gargina Dupka, Mostovo, alt. 905 m, 26.10.1991, BP & P. Stoev [4]; 1 ad., below Mostovo close to Vodnata Peshtera Cave, alt. 850 m, 21.10.2001, BP & VB; idem., many ad./subad., 720–800 m, 2.7.2004, NTz [39]; 3 ad., in Arda River close to Kraypatnata Cave, Smilyan, alt. 780 m, 11.7.1997, BP [40]; 2 ad, Belitsa, Gyumberdziyata, alt. 800 m, 20.8.2001, BP & VB [41]; 1 ad, Belitsa, Belishkata Erkyupria Natural Bridge, alt. 650 m, 20.8.2001, VB & BP [42]; 1 ad., in the mine gallery above Dzurkovo, alt. 1250 m, 19.10.2001, VB & BP [43]; 2 ad. in the river, 2 km N of Buynovo, alt. 1300 m, 17.6.2002, BP & HS [44]; 1 spec. KOR, between Smolyan and the pass before Mugla, 1200 m, 19.9.2005, BP [45]; 2 ad., small tributary of Chepinska River, 5 km N of Draginovo, alt. 800 m, 24.7.1993, NTz [46]; 1 ad., 4 juv., Valley of River Bistritsa, 4 km N of Satovcha, alt. 1100 m, 30.4.2001, NTz [47]; 2 ad., Krichim, Izgoryaloto Gyume Reserve, alt. 450-500 m, 1.7.2004 NTz [48]; 2 ad., 15 subad., Zhenda, Zhenda Reserve, alt. 750 m, 1.7.2004, NTz [49]; 1 ad., between Parvenets and Hrabrino, in the valley of Parvenetska River, alt. 270 m, 25.9.2004, GP & I. Mollov [50]; 3 ad., in Elhovska River, 1-2 km from Plovdivtsi, alt. 950-1100 m, 3.9.2005, GP & S. Avramov [51]; 1 ad., in a stream near a dirt road between Koritata and Tsigansko Gradishte (Chengeneto), alt. 950 m, 4.9.2005, GP & D. Plachiyski [52]; 3 ad, in a stream towards Smolyan, below Pamporovo Resort, Summer of 1990, alt. 1600 m, A. Stojanov [53].

Greece:1 subad., along brooklet 2,5 km E of 'Base Camp' of 'Paranesti Virgin Forest', alt. 1000 m, 15.5.1998, HS [54]; 1 subad., 1 ad., along brooklet 4 km N of Thermia Paranestiou, alt. 950 m, 15.5.1998, HS [55]; 1 ad., KOR, on the road 15 km N of Paranesti, alt. 350 m, 15.5.1998, HS [56]; 1 ad., in a brooklet along the road, 12 km E of Elatia, alt. 1360 m, 22.5.2004, HS [57]; 1 m, in Kalydorema brooklet 9 km W of 'Base Camp' of 'Paranesti Virgin Forest', alt. 1110 m, 24.5.2004, HS [58]; 1 ad., along brooklet in 'Paranesti Virgin Forest', alt. 1000 m, 6.7.2005, HS [59]; 2 ad, Pachni, small river, alt. 600 m, 25.9.2000, BP & P. Stoev [60].

The Greek Frog seems to be more common in the Western Rhodopes than the Agile Frog (Fig. 4). The largely available clean mountain streams and tributaries are excellent habitats for the Greek Frog, which occurs nearly as continuously as the Common Frog up to 1600 m [53]. The biology of the species was studied in details by ASIMAKOPOULOS (1997a), ASIMAKOPOULOS & MOURVATI (1999a, b) and BESHKOV (1970, 1972b).

Rana dalmatina Bonaparte, 1840

Published data

Bulgaria: 3 spec., River Bistritsa below Kribul and near Satovcha, 29.8.1934 [1-2] (BURESCH & ZONKOW, 1942); 1 ad, Dobrostan, Martsiganitsa Hut, entrance of Topchika Cave, alt. 990 m, 28.5.1968 [3] (BESHKOV 1972a).

Greece: "Meseoniki Gefira" near Polyanthon, alt. 100 m [4]; Monastery of Panagia, Panagia Forest, N of Xanthi, alt. 150 m [5]; Kossinthos River near Pillima, alt. 220 m [6]; Miki, alt. 180 m [7]; Ehinos, alt. 350 m [8]; Likodromion, alt. 390 m [9]; Kalithea, alt. 750 m [10]; Stavroupolis, alt. 100 m [11]; Paranesti, alt. 120 m [12]; "Gefira Pharasinou" at Pharasinos River, alt. 400 m [13]; "Likolikos", Paranesti Virgin forest, alt. 1650 m [14]; Vathyrema River near Height Tsakalos, Elatia Forest, alt. 900 m [15]; Height Tsakalos, Elatia Forest, alt. 1500 m [16] (ASIMAKOPOULOS, 1994b).

Original data

Bulgaria: Hvoyna, alt. 750 m, 17.7.1987, M. Vlašin pers. comm. to VB [17]; 1 ad, Peshtera, entrance of Snezhanka Cave, alt. 860 m, 25.6.1988, VB [18]; Srednogortsi, mouth of Cherna River, alt. 650 m, 09.10.1998, VB [19]; 3 ad, Dyadovtsi, Dyavolskiya Most Bridge, alt. 540 m, August 1999, VB & BP [20]; 1 ad, 1.5 km from the mouth in the valley of Davidkovska Arda river, alt. 450 m, August 1999, VB & BP [21]; Mesta River valley, junction to Dabnitsa, alt. 500 m, 5.4.1960, VB [22]; 1 ad, between Lyaskovo and Devin, alt. 1000 m, 26.9.2003, VB [23]; 3 ad, 2 km from Mihalkovo towards Krichim, alt. 550 m, 26.4.2002, VB [24]; 1 ad. KOR, below hut Bryanovshtitsa, alt. 1000 m, 29.9.1991, BP [25]; 1 ad. on the road between Chala and Borino, alt. 1350 m, 3.8.1997, BP [26]; 1 ad, Belitsa, Gyumberdjiyata, alt. 800 m, 20.8.2001, BP & VB [27]; 2 ad, KOR, 2 km from Belitsa towards Laki, alt. 670 m, 20.8.2001, BP & VB [28]; 1 ad, Perushtitsa, Manastira,

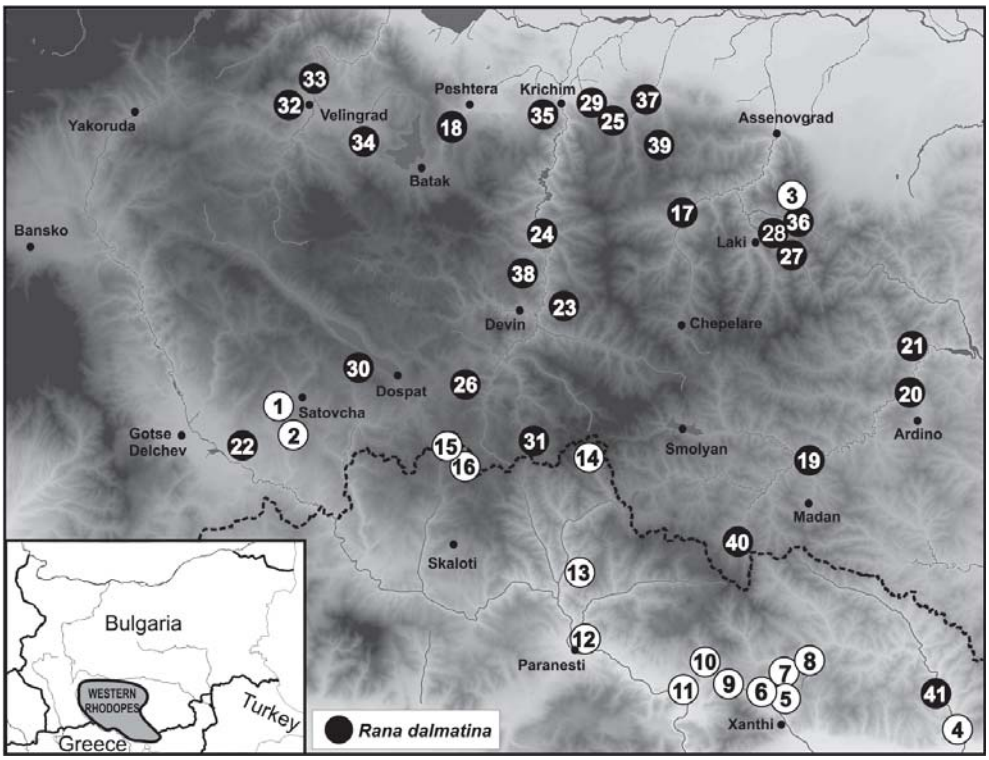

Fig. 5. Distribution of *Rana dalmatina*.

alt. 400 m, 07.05.2002, BP [29]; 1 ad., 6 km west of Dospat along the southern bank of the dam, alt. 900 m, 16.6.2002, BP & HS [30]; 1 ad, between Trigrad and Kesten, alt. 1200 m, 18.9.2005, BP [31]; 1 spec., W of Velingrad, alt. 800 m, 19.7.1993, NTz [32]; 1 spec., Draginovo, alt. 800 m, 17.7.1993, NTz [33]; 1 spec., Rakitovo, alt. 800 m, 1.7.1994, NTz [34]; 1 ad., Krichim, Izgoryaloto Gyume Reserve, alt. 450-500 m, 1.7.2004, NTz [35]; 3 ad., River Sushitca, before Mostovo, alt. 720–800 m, 2.7.2004, NTz [36]; 1 ad., between Parvenets and Hrabrino, in the valley of Parvenetska River, alt. 270 m, 25.9.2004, GP & I. Mollov [37]; 1 ad., Golyamoto Burdo between Devin and Stomanovo (4 km from Devin), alt. 1200 m, 20.5.2005, GP & D. Plachiyski [38]; 1 ad., near Boykovo, Sindjok Range, alt. 1220 m, 10.6.2004, GP & O. Todorov [39]; 1 ad., Elhovska River, 1 km from Plovdivtsi, alt. 900 m, 12.8.2005, GP & S. Avramov [40].

Greece: >30 larvae, >10 juv., drinking reservoir near Tangeo, 10 km N of Iasmos, alt. 100 m, 1.7.2005, HS [41].

We presume that the Agile Frog is much more common in the studied region than revealed by the available field data (Fig. 5). The highest record comes from 1650 m a.s.l. in Greece [14].

***Rana ridibunda* Pallas, 1771**

The Marsh Frog is amongst the common frogs in the Western Rhodopes. It occurs almost continuously along rivers, reservoirs and ponds from the foothills up to ca. 1000 m a.s.l. With regard to difficulties in the field discrimination between *R. ridibunda* and *R. kurtmuelleri* (*balcanica*), all samples from the Greek slopes of the Rhodopes are classified in one group "*ridibunda-kurtmuelleri*".

***Rana temporaria* Linnaeus, 1758**

Published data

Bulgaria: Forests between Chepelare and Pashmàakla on the watershed between rivers Chaya and Arda and near Pashmakli (now Smolyan) (MÜLLER, 1934); 1 spec., Eshek Kulak Hill, below Karlaka Summit, alt. 1800 m, 31.7.1931; Karlaka Summit, near Chepelare, alt. 2000 m, 27.7.1924; 3 spec., Karamandja Summit (now Snezhanka), near Chepelare, alt. 1900 m, 31.7.1931; 3 spec., Buynovo, alt. 1300 m; Katrandja Dere near the old Bulgarian-Greek borderline, 15.11.1937; 7 spec., Site Tash-boaz near Dospat, 4.6.1937; near Batashko Marsh (now Batak Dam), alt. 1090 m, 22.8.1940 (BURESCH & ZONKOW, 1942); Chudnite Mostove Hut (ANGELOV & KALCHEV, 1961); between Chudnite Mostove Hut and the road fork to Zabardo, alt. 1150 m (BESHKOV, 1972a).

Greece: Levadetes, alt. 1200 m (SOFIANODOU et al., 1988); "Palea Sinantisi", Haidou Forest, alt. 1250 m; Lepidas, alt. 1440 m; Likopoulo, alt. 1550 m; "Likolikos", Paranesti Virgin Forest, alt. 1650 m; Anthero, Elatia Forest, alt. 1330 m; Gioumourlou, Elatia Forest, alt. 1400 m; Pistola, Elatia Forest, alt. 1450 m; Vathyrema River near Height

Tsakalos, Elatia Forest, alt. 900 m; Lefkouda, 1400 m (ASIMAKOPOULOS, 1989); Stenopotamos River between Levadetes and Haidou Forest, alt. 1100 m; "Gefira Leonida" in Arkoudorema River Valley, Haidou, alt. 1000 m; Stavrorema River, Elatia Forest, alt. 1300 m (ASIMAKOPOULOS, 1994b); Elatia area, in a pond next to River Vathyrema, alt. 1350 m (BOUSBOURAS et. al., 1997).

Original data

Bulgaria: ca. 100 breeding spec. in a lake, junction to Zmeitsa on the road Borino-Dospat, alt. 1250 m, 11.3.1998, BP; many egg clumps in puddles, above Kossovo, alt. 1000 m , 25.3.2000, BP; 1 ad. in the cave Forgovo, Forgovo dere, Kesten, alt. 1360 m, 11.11.2000, BP; 6 ad. in Gashtna River, junction towards Stomanevo between Mihalkovo and Devin, 720 m, 2.9.2001, BP & VB; 3 ad, in a brook between Dobraluk and Yavrovo, alt. 1000 m, 22.10.2001, BP & VB; 3 ad, 6 km W of Dospat along the southern bank of the dam, alt. 1230 m, 16.6.2002, BP & HS; idem. 5 ad, 11.5.2005, BP & NTz; 2 ad. in a stream, between Kozhari and Buynovo, alt. 1325 m, 17.6.2002, BP & HS; 2 spec. in a stream, 1 km from Perelik Hut towards the summit, alt. 1950 m, 18.6.2002, BP & HS; 3 subad., 4 km before Chairskite Lakes, alt. 1200 m, 29.4.2001, NTz; many breeding spec., Chairskite Lakes, alt. 1480 m, 29.4.2001, NTz; 8 subad., the pass between Smolyan and Stoikite, alt. 1650 m, 4.7.2004 NTz; 6 ad., eggs, in ponds SW of Trigrad, alt. 1410 m, 15.4.2005, GP & D. Plachiyski; 6 ad., in a pond below Adjelareto Summit (4 km S of Trigrad), alt. 1470 m,

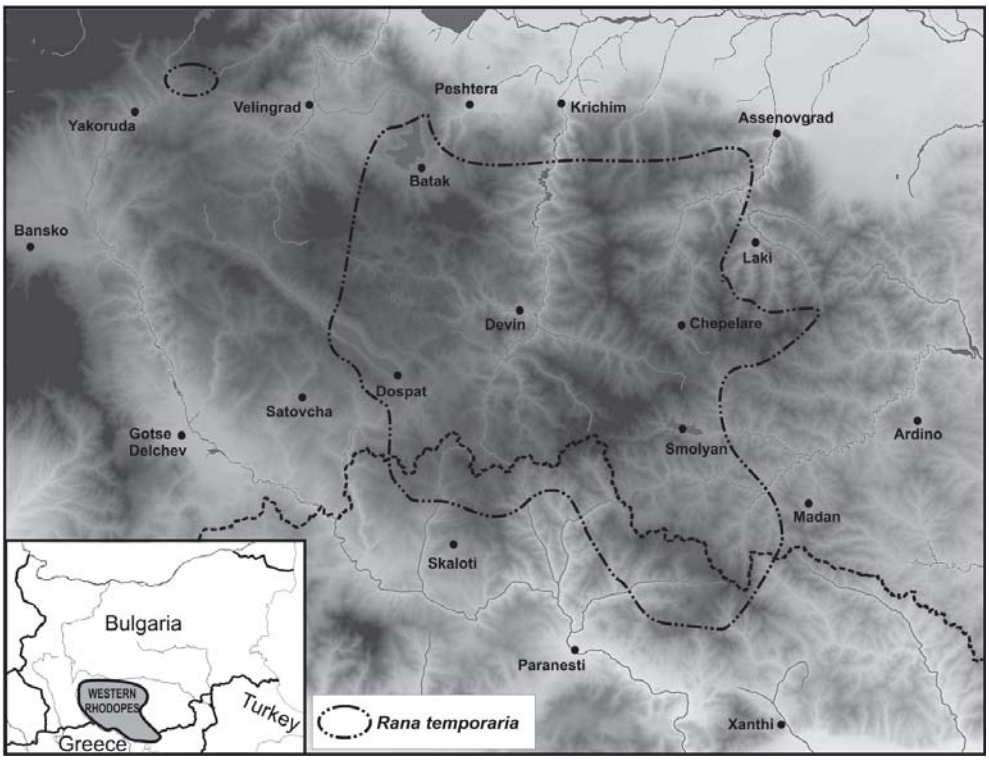

Fig. 6. Distribution of *Rana temporaria*.

16.4.2005, GP & D. Plachiyski; 6 ad., eggs, in pond below Portata Summit (8 km S of Trigrad), alt. 1400 m, 16.4.2005, GP & D. Plachiyski; 3 ad., eggs, in floods of Vodni Pad River near the village, alt. 1328 m, 16.4.2005, GP & D. Plachiyski; 1 ad., near Bulgarian-Greek border, Tsigansko Gradishte, alt. 1560 m, 3.9.2005, GP; 2 ad., in ponds between Koritata and Tsigansko Gradishte (Chengeneto), alt. 950 m, 4.9.2005, GP & D. Plachiyski; 1 juv., in the valley of Erma River near Marzyan, alt. 850 m, 5.9.2005, GP.

Greece: 1 f, along a brooklet 2,5 km E of 'Base Camp' of 'Paranesti Virgin Forest', alt. 1000 m, 15.5.1998, HS; >30 larvae, in a pool on forest path in 'Paranesti Virgin Forest' (near Bulgarian border), alt. 1160 m, 4.7.2005, HS; 2 juv., 1 f, along a brooklet in 'Paranesti Virgin Forest' (near Bulgarian border), alt. 1620 m, 5.7.2005, HS.

The Common Frog is the most widespread and abundant anuran within the studied region (Fig. 6). In the Greek part of the Western Rhodopes it occurs only in the areas above 900 m a.s.l. At these altitudes, its occurrence is almost discontinuous, though field data from many highland areas is not avaialble. On the map we have depicted the range of the species based upon the most marginal points of its distribution within the mountain. Original data are not fully presented in the list of localities.

Reptilia

A total of 29 species of reptiles (2 tortoises, 2 terrapins, 12 lizards and 13 snakes) were reported from the Western Rhodopes. Out of the 32 terrestrial species of reptiles found in Bulgaria (BESHKOV & NANEV, 2002), 24 (i.e. 75%, including two species, which were not recently confirmed) were established in the studied region. Out of ca. 46 reptiles found in mainland Greece (EMBL REPTILE DATABASE, 2005), 21 species (i.e. 46%) were proved for the Greek part of the mountain.

Emys orbicularis (Linnaeus, 1758)

Original data

Bulgaria: 2 spec., flooded areas near River Matnitsa E of Velingrad, alt. 750 m, 14.7.1993, NTz [1].

Greece: 7 ad., in Nestos (Mesta) River, under a bridge near Stavroupoli, alt. 80 m, 21.5.2004, HS [2].

The distribution and abundance of the European Pond Terrapin within the core of the studied region is limited due to environmental constrains (Fig. 7).

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

Original data

Greece: 8 ad., in Nestos River, under a bridge near Stavroupoli, alt. 80 m, 21.5.2004, HS [1].

The Balkan Terrapin was found only once at the border of the studied region (Fig. 7). It could be hardly considered as belonging to the Western Rhodopean herpetofauna.

***Testudo graeca* (Linnaeus, 1758)**

Published data

Bulgaria: 1 spec., Bachkovski cloister, (Bachkovski Manastir), alt. 450 m, 29.7.1931 [1] (BURESCH & ZONKOW, 1933).

Original data

Bulgaria: 1 subad., Paspal, bank of Arda River, alt. 550 m, 10.10.1998, VB [2]; 1 ad, 4 km upstream of Dyavolskiya Most Bridge along Arda River, alt. 540 m, August 1999,

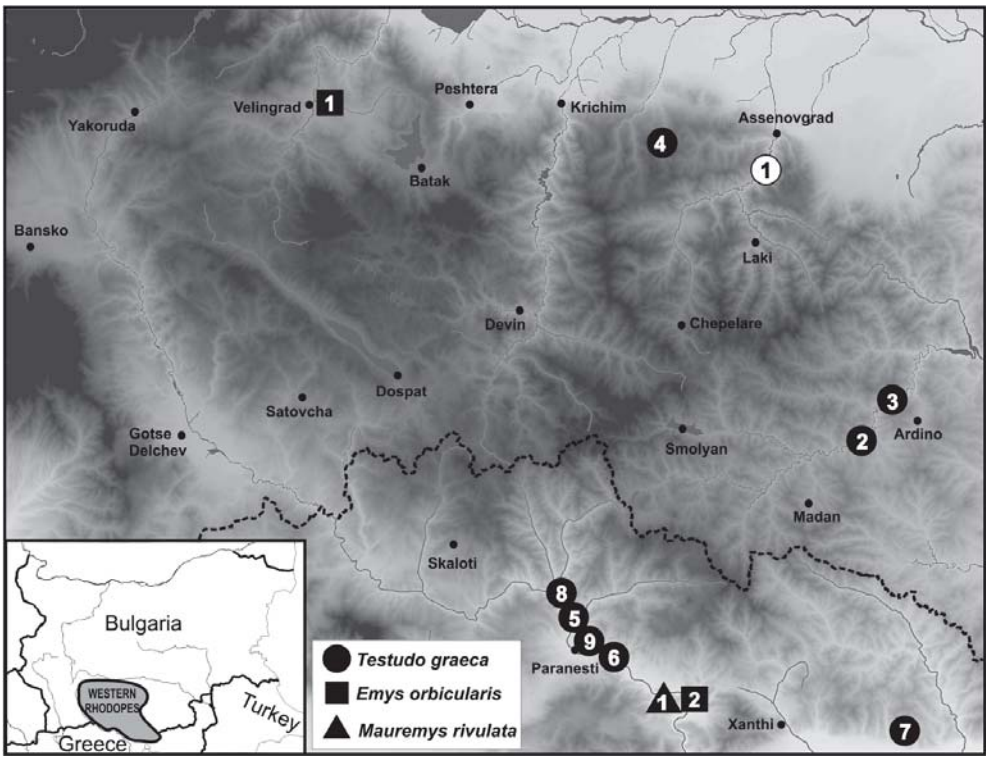

Fig. 7. Distribution of *Emys orbicularis*, *Mauremys rivulata* and *Testudo graeca*.

VB & BP [3]; 1 f, on a slope with southern exposure, Kriv Kamuk Range, Boykovo, alt. 1050 m, 15.6.2000, GP & O. Todorov [4].

Greece: 1 m, 5 km N of Paranesti, alt. 200 m, 13.5.1998, HS [5]; 1 m, on the road near Sterna, 8 km E of Paranesti, alt. 110 m, 11.6.2002, HS [6]; 1 subad., KOR, near Koptero, 5 km W of Iasmos, alt. 40 m, 11.6.2002, HS [7]; 1 m, on the road 9 km N of Paranesti, alt. 290 m, 24.5.2004, HS [8]; 1 m, on the road near Paranesti, alt. 165 m, 24.5.2004, HS [9].

The Spur-thighed Tortoise occurs only at the periphery of the studied region (Fig. 7). It was found high in the mountain close to a villa estate above Boykovo (Bulgaira) at 1050 m [4]. We presume that this specimen was brought there by chance and does not naturally occur at this site. Although survival of adult specimens in this area over a longer period is possible, successful breeding above 800 m a.s.l. in the Bulgarian Western Rhodopes is unlikely.

Testudo hermanni Gmelin, 1789

Original data

Bulgaria: 1 ad, Dyadovtsi, Dyavolskiya Most Bridge, alt. 540 m, August 1999, VB & BP [1]; 1 ad, 5 km upstream of Dyavolskiya Most Bridge along Arda River, alt. 510 m, August 1999, VB & BP [2]; 1 ad, 1.5 km upstream of Stoyanov Bridge along Arda River, alt. 550 m, August 1999, VB & BP [3]; 1 ad, 4 km downstream of Stoyanov Bridge along Arda River, alt. 540 m, August 1999, VB & BP [4]; 1 ad, 2.5 km from the mouth in the valley of Davidkovska Arda river, alt. 470 m, August 1999, VB & BP [5]; 4 ad., bred in captivity in a restaurant but all were caught close to the village Smilyan, alt. 750-800 m, 10.8.2004, BP [6]; 1 m, on a slope with southern exposure, Kriv Kamuk Range, Boykovo, alt. 1050 m, 10.8.2000, GP & O. Todorov [7]; 1 m, near Narechenski Bani, alt. 910 m, 2.7.2005, K. Stoyanov [8].

Greece: 4 m, 3 f, Kompsatos River valley near Tangeo, 10 km N of Iasmos, alt. 100-300 m, 13.5.1998, HS [9]; 1 m, along a road 13 km N of Paranesti, alt. 310 m, 15.5.1998, HS [10]; 1 subad, 4 m, 1 f, near Tangeo, 10 km N of Iasmos, alt. 100 m, 20.5.2004, HS [11]; 1m, 1 f, courting pair, between Neochori and Dafnonas, 6 km NW of Stavroupoli, alt. 135 m, 21.5.2004, HS [12]; 1 m, near Kato Tholos, 3 km E of Paranesti, alt. 135 m, 21.5.2004, HS [13]; 1 ad., KOR, on the road near Koptero, 5 km W of Iasmos, alt. 50 m, 7.6.2004, HS [14]; 1 subad., Paranesti, alt. 120 m, 3.7.2005, HS [15].

With regard to the species preferences towards bushy and forested slopes, it is not unusual that the Hermann's Tortoise has a wider distribution in the Western Rhodopes (Fig. 8). It was found to penetrate deep into the mountain following the major river courses along Arda, Chaya, Mesta, Kompsatos and Arkoudorema Rivers. The discovery of a single specimen close to Boykovo [7] is probably accidental due to translocation by villagers. There are no field observations for the species' abundance and breeding in the Upper Arda River Valley (Bulgaria) [6] but it is quite possible that locally, environmental conditions allow its successful reproduction.

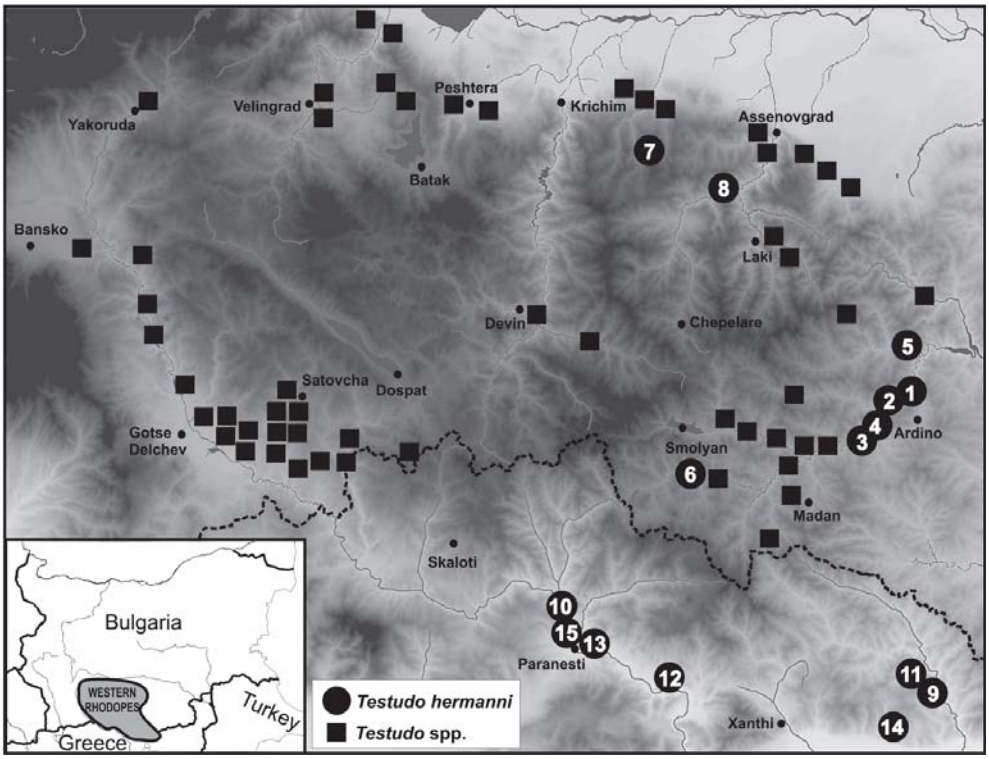

Fig. 8. Distribution of *Testudo hermanii* and *Testudo* spp.

Testudo spp.

Original data

BULGARIA: close to Bulgarian-Greek border south of Barutin, oak shrubs, alt. ca. 900 m, 1998, oral comm. to BP; above Perushtitsa, alt. 300-400 m, shrubs, Summer of 2000, oral comm. to BP; old records from the 30's and 40's of XX century from the surroundings of Velingrad, oral comm. to NTz.

During the field research in Bulgaria local people told us about occurrence of tortoises in the vicinity of many villages. We did not find any specimens but think that locally, the environmental conditions allow natural occurrence of tortoises.
V. Beshkov carried out a sociological survey on the relative abundance and distribution of tortoises in Bulgaria between 1976 and 1979. Details from this study have never been published though a review paper appeared later on (BESHKOV, 1993). Considering the high conservation value of tortoises, we report all records from this study, which geographically belong to the Western Rhodopes (Fig. 8). The number in brackets indicates the relative number of tortoises seen in proper habitats within a day walk around a village. Forest workers, mayors, hunters or other relevant respondents provided abundant assessments. The negative responses (i.e. no "tortoises") from certain villages are not listed.

Blagoevgrad District: Ablanitsa (25 spec.), Baldevo (10 spec.), Blatska (8-9 spec.), Bogolin (1 spec.), Vaklinovo (10 spec.), Valkosel (10 spec.), Godeshevo (5-6 spec.), Gorno Dryanovo (10-15 spec.), Gospodintsi (10 spec.), Gostun (1 spec.), Garmen (5 spec.), Debren (6 spec.), Dobrinishte (5 spec.), Dolen (6 spec.), Dolno Dryanovo (3-4 spec.), Dabnitsa (10 spec.), Eleshnitsa (4-5 spec.), Zhizhevo (10 spec.), Kochan (3 spec.), Kraishte (5 spec.), Kribul (7 spec.), Krushevo (80 spec.), Leshten (15 spec.), Mesta (5 spec.), Ognyanovo (5 spec.), Oreshe (10 spec.), Osikovo (4 spec.), Pletena (1 spec.), Satovcha (4-5 spec.), Skrebatno (3-4 spec.), Slashten (12 spec.), Tuhovishta (3 spec.), Fargovo (6 spec.), Cherna Mesta (3-5 spec.).
Pazardjik District: Velingrad (2-3 spec.), Vetren Dol (1 spec.), Dorkovo (1 spec.), Draginovo (2-3 spec.), Kozarsko (1-2 spec.), Kostandovo (4 spec.), Peshtera (1 spec.).
Plovdiv District: Bachkovo (1 spec.), Belitsa (2-3 spec.), Boykovo (1 spec.), Brestovitsa (1 spec), Gorni Voden (10 spec.), Kormisosh (1 spec.), Lyaskovo (2 spec.), Novakovo (5 spec.), Parvenets (1-4 spec.), Topolovo (2 spec.), Tri Mogili (5-6 spec.), Cherven (50 spec.).
Smolyan District: Banite (8 spec.), Barutin (1-2 spec.), Borovina (25 spec.), Bukova Polyana (30 spec.), Bukovo (30 spec.), Vehtino (5 spec.), Voikova Laka (3 spec.), Valchan Dol (5 spec.), Varbina (6-8 spec.), Varbovo (1 spec.), Galabovo (50 spec.), Davidkovo (3-4 spec.), Devin (1 spec.), Dospat (5 spec.), Elhovets (3 spec.), Kasak (1 spec.), Leshtak (20-30 spec.), Lyubcha (15 spec.), Madan (1-2 spec.), Malevo (1 spec.), Osikovo (1-2 spec.), Petkovo (1 spec.), Ravninata (12 spec.), Reka (3 spec.), Riben dol (10-20 spec.), Slivka (8 spec.), Smilyan (1 spec.), Srednogorsti (2 spec.), Starnitsa (1 spec.), Tikale (4 spec.), Taran (4 spec.), Tsrancha (10 spec.), Chepintsi (2-3 spec.), Shiroka Laka (2-3 spec.).

Reports of tortoises at higher altitudes in the core of the mountain are striking considering the environmental conditions above 1000 m a.s.l. In the majority of those cases, single specimens were released / translocated close to recreational complexes, camping grounds or villa estates. Long-term survival of tortoises above 1000 m a.s.l would be possible only on warm, south-facing slopes, especially in the Greek Western Rhodopes and hardly in Bulgaria.

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

Original data

Greece: 1 f, near Bulgarian border N of Iasmos, alt. 700 m, 13.5.1998, HS [1]; 1 m, KOR, on the road just W of Stavroupoli, alt. 110 m, 24.5.2004, HS [2]; 4 ad., KOR, on the road 2-3 km W of Iasmos, alt. 40 m, 7.6.2004, HS [3]; 1 ad., Kompsatos valley, 10 km N of Iasmos, alt. 100 m, 8.7.2004, HS [4].

The European Glass Lizard is a common and locally abundant species all over Northern Greece. During the field trips we found it in the foothills of the Western Rhodopes [2] and even further deep in the mountain along Kompsatos River [3, 4] up to 700 m a.s.l. [1] (Fig. 9).

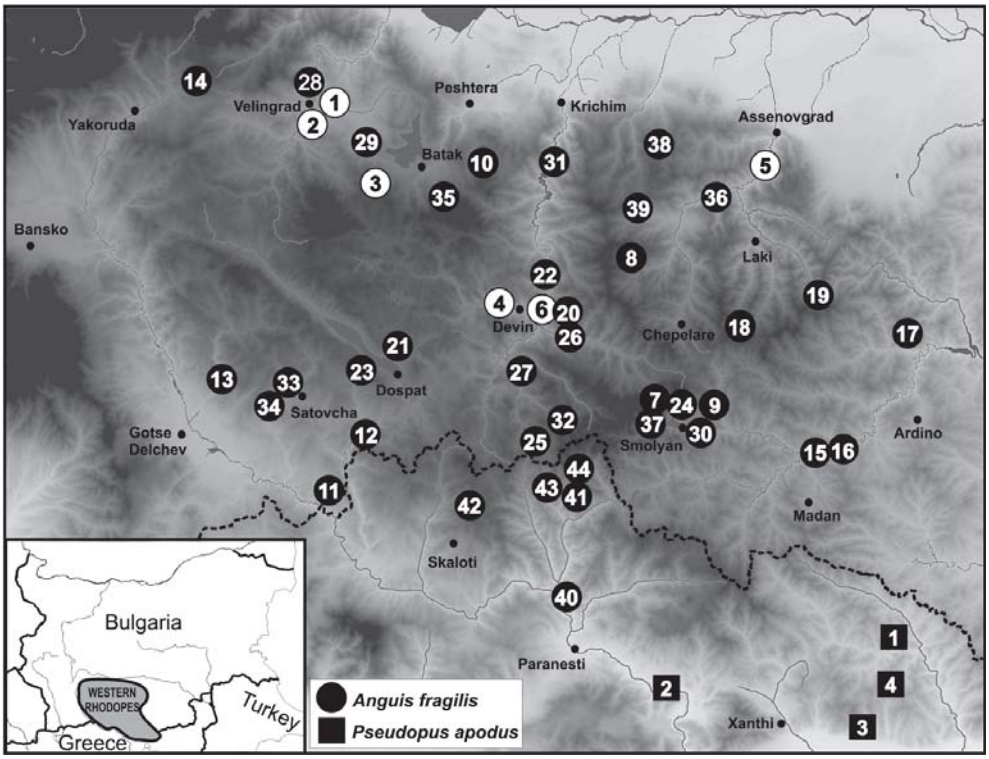

Fig. 9. Distribution of *Pseudopus apodus* and *Anguis fragilis*.

Anguis fragilis **Linnaeus, 1758**

Published data

BULGARIA: Ladjene (now Velingrad), 4.6.1925 [1]; 1 sp., near River Lepenitsa, Chepino (now Velingrad), alt. 1000 m, 31.7.1927 [2]; 1 spec., below Syutkya Summit, alt. 1700 m, 27.4.1930 [3]; 1 spec., Lyutite Kamani Site near Dyovlen (now Devin), 27.5.1924 [4]; Bachkovski cloister (Bachkovski Manastir), alt. 450 m, 8.8.1905 [5] (BURESCH & ZONKOW, 1933); Devin [6] (BESHKOV, 1966).

Original data

BULGARIA: 1 ad, below Snezhanka Summit above Pamporovo, alt. 1800 m, July 1950, VB [7]; 1.5 km before Chudnite Mostove Hut, alt. 1400 m, 19.5.1966, VB [8]; 1 ad, between Smolyan and Sokolovtsi, alt. 800 m, October 1968, VB [9]; 2 km above Fotinovo towards Ravnogor, alt. 1200 m, 8.6.1981, VB & D. Jameson [10]; between Slashten and Tuhovishta, alt. 700 m, 6.6.1986, VB [11]; Tsruncha, alt. 1050 m, 6.6.1986, VB [12]; 2 km from Kovachevitsa towards Gotse Delchev, alt. 900 m, 5.6.1986, VB [13]; Yundola, 500 m from the highest point of the road pass, alt. 1300 m, 25.6.1995, VB [14]; Varbina, 1 km downstream along Arda River, alt.600 m, 10.10.1998, VB [15]; Vehtino, along Arda River,

alt. 600 m, 10.10.1998, VB [16]; 1 ad, 1.5 km from the mouth in the valley of Davidkovska Arda River, alt. 450 m, August 1999, VB & BP [17]; Junction to Balkan Mahala between Laki and Manastir, alt. 1100 m, 22.7.2001, VB [18]; 10 km from Belitsa towards Zagrazhden, alt. 1200 m, 23.7.2001, VB [19]; 1 ad, between Lyaskovo and Devin, alt. 1000 m, 26.9.2003, VB [20]; Dospat, 1200 m, 10.7.1987, M. Vlašin pers. comm. to VB [21]; 3 ad, junction towards Stomanevo between Mihalkovo and Devin, 650 m, 2.9.2001, BP & VB; idem., 1 ad., 2 juv., under stones, 21.5.2005, GP & D. Plachiyski [22]; 1 juv., KOR, 6 km W of Dospat along the southern bank of the dam, alt. 1230 m, 11.5.2005, BP & NTz [23]; 1 ad. KOR the junction to Smolyanski Ezera Hut above Smolyan, alt. 1100 m, 10.5.2005, BP & NTz [24]; 1 ad, KOR, between Trigrad and Kesten, alt. 1200 m, 18.9.2005, BP [25]; 1 ad. L_{body}= ca. 60 cm, on the road between Bedenski Mineralni Bani and Shiroka Laka, alt. 850 m, 18.9.2005, BP [26]; 1 ad, KOR, below Gyovren, alt. 925 m, 28.04.01, NTz [27]; 1 spec., Draginovo, alt. 800 m, 16.7.1993, NTz [28]; 1 spec., Rakitovo, alt. 800 m, 3.7.1994, NTz [29]; 1 spec., Smolyan (Ustovo), alt. 650 m, 8.07.1997, NTz [30]; 1 spec., near Vacha Dam barrage, alt. 500 m, 28.4.2001, NTz [31]; 1 spec., Chairskite Lakes, alt. 1480 m, 29.04.2001, NTz [32]; 1 spec., Satovcha, alt. 1000 m, 30.4.2001, NTz [33]; 1 spec., Dolno Dryanovo, alt. 800 m, 30.4.2001, NTz [34]; 1 spec., below Batashki Snezhnik Summit, alt. 1900 m, 12.8.2002, NTz [35]; 1 spec., Narechen, Narechenski bani, alt. 600 m, 4.6.2003, NTz [36]; 1 ad., 1 km NW of Smolyan towards Kriva River, alt. 1100 m, 10.5.2003, GP [37]; 1 ad., above Boykovo, àlt. 1120 m, 10.6.2005, GP & O. Todorov [38]; 5 ad, along a dirt road between Orehovo and Hut Persenk, alt. 1400-1450 m, 6.6.2004, A. Westerström [39].

Greece: 1 m, L_{body}= 21 cm, L_{tail}= 27 cm, KOR, on the road 15 km N of Paranesti, alt. 350 m, 15.5.1998, HS [40]; 1 m, 3 km W of 'Base Camp' of 'Paranesti Virgin Forest', alt. 1330 m, 21.5.2004, HS [41]; 1 subad., 1 m, just S of Elatia, alt. 1585 m, 23.5.2004, HS [42]; 1 m, 13 km W of 'Base Camp' of 'Paranesti Virgin Forest', alt. 975 m, 23.5.2004, HS [43]; 1 m, 1 f, copulating pair, under stone in 'Paranesti Virgin Forest', alt. 1300 m, 4.7.2005, HS [44].

The Slow Worm is a common anguid lizard in the Western Rhodopes (Fig. 9). It occurs up to the timberline at 1800 m a.s.l. [7]. All specimens found in the Bulgarian part of the mountain belong to the nominate subspecies (*A. f. fragilis*) though samples from Devin locality [6] show mixed characteristics but still they are not typical *A. f. colchica.*

***Podarcis erhardi* (Bedriaga, 1882)**

Published data

Greece: Sidironero [1] (POULAKAKIS et al., 2005b); In a wide mountainous zone along the north borders of Greece (CHONDROPOULOS, 1986).

Original data

Bulgaria: 2 spec., Ablanitsa, alt. 600 m, 8.8.2001, NTz [2]; 1 spec., Slashten, alt. 600 m, 9.8.2001 NTz [3]; many specimens, between Teplen and Beslen, along Mesta River at the Rhodopean bank, alt. 450 m, 20.10.2004, VB [4].

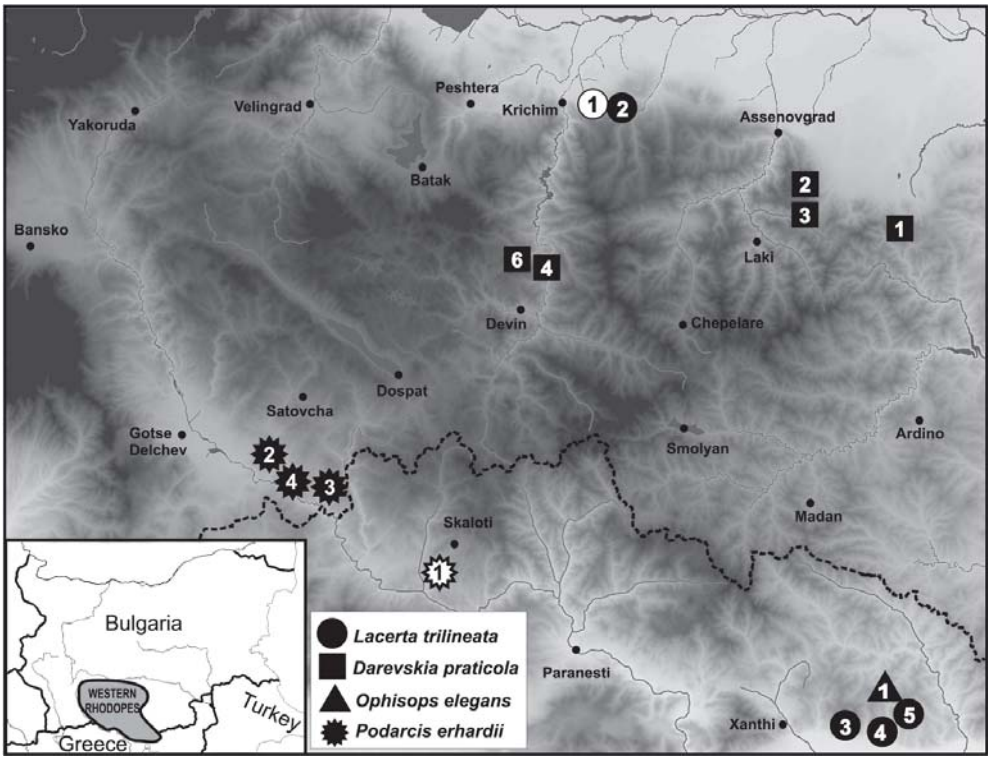

Fig. 10. Distribution of *Podarcis erhardi*, *Lacerta trilineata*, *Darevskia praticola* and *Ophisops elegans*.

The Erhard's Wall Lizard occurs only at the periphery of the Western Rhodopes (Fig. 10). It penetrates through the valleys of the major rivers but very rarely occurs above 600 m a.s.l. All examined specimens from Bulgaria belong to *P. erhardi riveti*.

Podarcis muralis (Laurenti, 1768)

The Common Wall Lizard is the most widespread lizard in the Western Rhodopes. It occurs mainly on rocks along paved and dirty roads, open cliff bases, boulders, screes and other rocky habitats. It was found in more than 100 localities throughout the mountain. The nominate subspecies was cited in the older literature for NE Greece, including "Rodopi mountain" (CYRÉN, 1933, 1941; CHONDROPOULOS, 1986). At present, only *P. muralis albanica* was accepted to inhabit the Balkan Peninsula (GRUSCHWITZ & BÖHME, 1986). The latter was defined on the basis of morphological characteristics and does not correspond to classifications based upon molecular phylogenetic clades (POULAKAKIS et al., 2005b). According to the latest morphological assessment (TZANKOV, in prep), the Western Rhodopes is a contact zone between the two closely related morphotypes- *P. muralis muralis* and *P. muralis albanica*. Generally, the first one is more common in the northwestern part of the mountain, the second is more common in the southern and eastern parts. The highest record is from 1700 m below Karlaka Summit (Bulgaria) (BURESCH & ZONKOW, 1933).

***Podarcis taurica* (Pallas, 1814)**

Published data

Greece: Miki [1]; Paranesti [2] (POULAKAKIS et al., 2005a).

Original data

Bulgaria: many specimens, between Teplen and Beslen, along Mesta River at the Rhodopean bank, alt. 450 m, 20.10.2004, VB [3]; 8 spec., S of Ablanitsa, alt. 500 m, 8.8.2001, NTz [4]; 4 spec., S from Slashten, alt. 500 m, 9.8.2001, NTz [5]; 2 ad., above Perushtitsa, alt. 350 m, 6.10.1990, BP [6]; 1 spec., above Brestovitsa, alt. 250-300 m, 5.6.1998, NTz [7]; 2 spec., above Parvenets, alt. 250-300 m, 5.6.1998, NTz [8]; 1 spec., above Novakovo, alt. 550 m, 7.6.1998, NTz [9].

The Balkan Wall Lizard does not occur in the core of the mountain but only locally at the peripheral foothills in open grassy habitats up to ca. 550 m a.s.l. (Fig. 11).

***Lacerta agilis* Linnaeus, 1758**

Published data

Bulgaria: near Kuklen [1] (KOVATCHEV, 1917); 1 spec., near Batak, 1.4.1924 [2]; idem., 3 spec., 16.5.1931 [2]; Yundola, Geshova Polyana Site, alt. 1400 m, 20.7.1931 [3]; 1 spec., near River Yadenitsa, above Golyamo Belovo, 5.9.1929 [4]; 1 spec., above Stoykite, alt. 1400 m, 31.7.1931 [5]; 1 spec., above Chepelare, alt. 1800 m, 31.7.1931 [6]; 2 spec., Chepelare, alt. 1100 m, 29.6.1924 [7] (BURESCH & ZONKOW, 1933).

Greece: N of Skaloti, prefecture of Drama, July 1986 [8] (NILSON & ANDRÉN, 1987); 1 f, Elatia Region, forest road in Kalivia Zara area, a specimen was found while digging to lay eggs, alt. 1420 m, 8.6.1995 [9] (BOUSBOURAS et. al., 1997); Rhodopi mountain chain (CHONDROPOULOS, 1986).

Original data

Bulgaria: 1 spec., near Dospat, 14.9.1904, herpetological collection of NMNH [10]; above Pamporovo, alt. 1600 m, 16.7.1977, VB & D. Jameson [11]; Stoykite, alt. 1250 m, 16.7.1977, VB & D. Jameson [12]; 3 f, junction to Zmeitsa on the road Dospat-Borino, alt. 1250 m, July 2005, S. Beshkov [13]; 2 m, 6 km from Satovcha towards Dospat, alt. 1250 m, June 2005, S. Beshkov [14]; 1 m, 1 f, 7 subad., 6 km west of Dospat along the southern bank of the dam, alt. 1230 m, 16.6.2002, BP & HS [15]; 2 f, pregnant, on the road between Kozhari and Buynovo, alt. 1325 m, 17.6.2002, HS & BP [16]; 1 m, 3 spec., 2 km north of Buynovo, alt. 1300 m, 17.6.2002, BP & HS [17]; 1 f pregnant, below the pass between Hut Lednitsata and Mugla, alt. 1680 m, 18.6.1997, D. Duhalov [18]; Batashki Snezhnik Summit, alt. 1850 m, 14.6.1995, NTz [19]; above Chairski Lakes, alt.

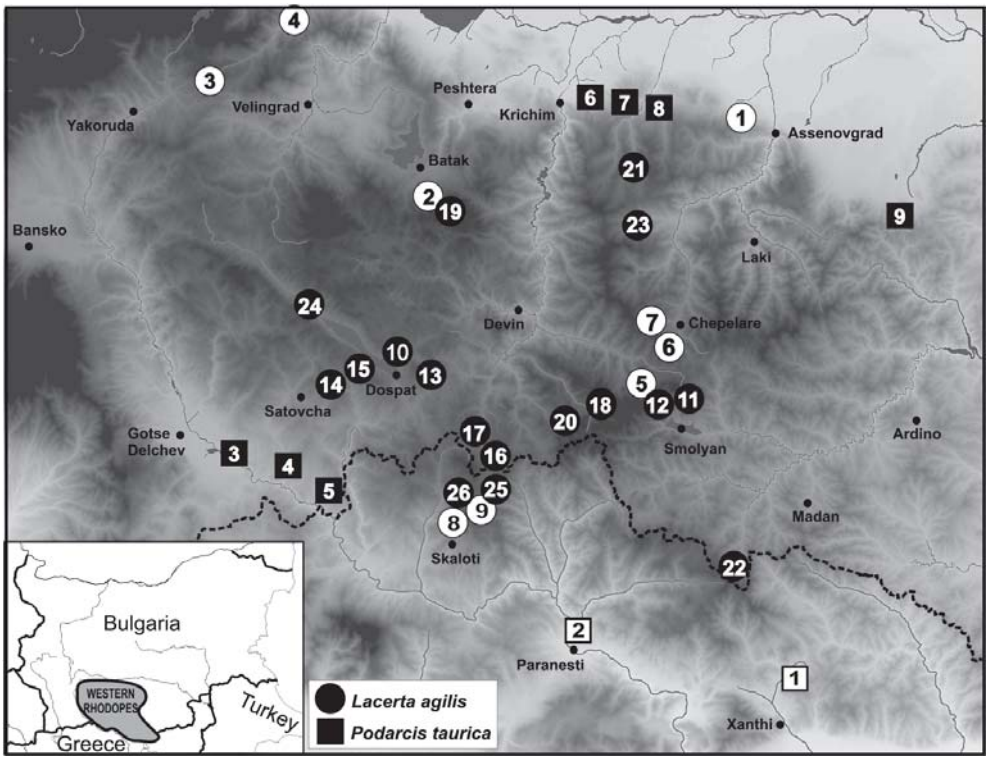

Fig. 11. Distribution of *Podarcis taurica* and *Lacerta agilis*.

1650 m, 29.4.2001, NTz [20]; 2 m, 1 f, N of Boykovo, àlt. 1150 m, 10.6.2005, GP & O. Todorov [21]; 1 f, near the Greek border, Tsigansko Gradishte, alt. 1560 m, 3.9.2005, GP [22]; 1 ad, meadows along a dirt road between Orehovo and Hut Persenk, alt. 1450 m, 7.6.2004, A. Westerström [23]; 1 ad, along Dospat River near Sarnica, 14.9.1204, B. Kitanov, herpetological collection of NMNH [24].

Greece: 1 m, 2 f (pregnant), 3 km NE of Elatia, alt. 1530 m, 22.5.2004, HS [25]; 7 subad., just S of Elatia, alt. 1585 m, 23.5.2004, HS [26].

With regard to great availability of damp, grassy grounds in the Western Rhodopes, the Sand Lizard is a common species above 900 m a.s.l (Fig. 11). It is rarer in the Greek part of the mountain, though locally it occurs in high number. The record from Kuklen [1] is dubious and needs confirmation. All examined samples from the Westrern Rhodopes in Bulgaria and the recent observations around Elatia in Greece belong to *L. agilis bosnica.*

Lacerta trilineata Bedriaga, 1886

Published data

Bulgaria: Perushtitsa [1] (ANGELOV et. al., 1966).

Original data

Bulgaria: W and E from Brestovitsa, alt. 200-300 m, 5.6.1998, NTz [2].

Greece: 1 m, 3 f, in fields near Amaxades, E of Xanthi, alt. 45 m, 11.6.2002, HS [3]; 1 ad., KOR, on the road 3 km W of Iasmos, alt. 45 m, 11.6.2002, HS [4]; 1 subad., near Tangeo, 10 km N of Iasmos, alt. 100 m, 20.5.2004, HS [5].

The Balkan Green Lizard does not occur high in the mountain but only along the peripheral foothills up to ca. 400 m a.s.l (Fig. 10). Considering the climatic differences, it is more common in the southern (i.e. Greek) foothills of the mountain. All examined samples from Bulgarian Rhodopes belong to *L. trilineata dobrogica.*

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

Published data

Bulgaria: Varvara (HRISTOVICH, 1892); 3 spec., near Ladjene (now Velingrad), 28.7.1925; 3 spec., above St. Kirika Monastery (above Gorni Voden), Assenovgrad, alt. 800 m, 17.7.1931; 1 spec., near Chepelare, alt. 1100 m, 30.7.1931 (BURESCH & ZONKOW, 1933); 22 spec., Hrabrino; 1 spec., Peshtera (ANGELOV et. al., 1972); 2 m, 1 f, Bachkovo (ENGELMANN & KABISCH, 1973);

Greece: 1 m, 1 juv., Kuru Chal, N of Xanti, June 1932 (CYRÉN, 1933).

Original data

Bulgaria: Kyuprya (near Assenovgrad), 15.5.1930; Krichim, 15.8.1930; above Brashten (S of Dospat), alt. 1000 m, 3.6.1936; Vacha River Valley, 26.5.1942, herpetological collection of NMNH; 2 ad, 4-5 km before Bezvodno from Zhenda, alt. 500 m, 26.7.2001, VB; abundant above Perushtitsa, alt. 300-450 m, 19.5.1990, BP; 1 ad., Koshnitsa, along the road, alt. 900 m, 18.8.1991, BP; 5 ad., Bryanovshtitsa climbing site above Hrabrino, 750 m, 22.4.1992, BP; ca. 15 ad. between Ribnovo and Gospodintsi, alt. 750-900 m, 30.4.1994, BP; ca. 10 ad., Kochan, valley of the River Kochanska, alt. 900-950 m, 28.4.1998, BP; abundant on the road between Mihalkovo and Devin, 600-700 m, 1-2.9.2001, BP & VB; 1 ad, above Belitsa on the trail to Borovo, alt. 750 m, 18.10.2001, VB & BP; 3 ad, along the road 5 km north of Buynovo, alt. 1200 m, 17.9.2005, BP; 1f, 2m, between Parvenets and Hrabrino, valley of Parvenetska River, alt. 270 m, 25.9.2004, GP & I. Mollov; 2 ad., between Trigrad and Vodni Pad, alt. 1300 m, 16.4.2005, GP & D. Plachiyski; 3 f, 2 m, 2 subad., on the trail Devin-Stomanovo, alt. 1100-1200 m, 20.5.2005, GP & D. Plachiyski; 1 m, 1 f, near Stomanovo, alt. 1075 m, 20.5.2005, GP & D. Plachiyski; 2m, above Vucha Dam, Chilingira restaurant, alt. 600 m, 11.7.2005, GP & O. Todorov; 2f, between Koritata and Tsigansko Gradishte (Chengeneto), alt. 1000 m, 4.9.2005, GP & D. Plachiyski; 1m, near Marzyan, alt. 900 m, 5.9.2005, GP; 1 f, above meadows along a dirt road between Orehovo and Hut Persenk, alt. 1600 m, 6.6.2004, A. Westerström.

Greece: >20 subad., >10 m, >10 f (pregnant), Kompsatos valley and hills around Tangeo, 10 km N of Iasmos, alt. 100-500 m, 13.5.1998, HS; 1 f, along the road 28 km N of Paranesti, alt. 370 m, 21.5.2004, HS; 4 subad., near Thermia Paranestiou (32 km N of Paranesti), alt. 540 m, 21.5.2004, HS; 1 m, 1 ad., 6 km W of 'Base Camp' of 'Paranesti Virgin Forest', alt. 1140 m, 21.5.2004, HS; 2 subad., along the road at the road bifurcation 11 km W of 'Base Camp' of 'Paranesti Virgin Forest', alt. 950 m, 22.5.2004, HS; 3 ad., along the road 18 km E of Elatia, alt. 1060 m, 22.5.2004, HS; 2 ad., along the road 12 km E of Elatia, alt. 1360 m, 22.05.2004, HS; 1 m, on the road 5 km N of Paranesti, alt. 200 m, 24.5.2004, HS; 1 subad., in the stomach of *Malpolon monspessulanus* (KOR), 3 km N of Paranesti, alt. 240 m, 24.5.2004, HS; 1 f, Kompsatos valley near Tangeo, 10 km N of Iasmos, alt. 100 m, 7.6.2004, HS; 1 m, 3 km N of Iasmos, alt. 405 m, 8.6.2004, HS; 1 ad., on the road along Nestos (Mesta) River, 1,5 km SW of Stavroupoli, alt. 95 m, 3.7.2005, HS; 1 subad., along Nestos (Mesta) River, 5 km N of Paranesti, alt. 155 m, 4.7.2005, HS; 2 f, 1 subad., along the road 30 km N of Paranesti, alt. 435 m, 4.7.2005, HS; 1 subad., along path in 'Paranesti Virgin Forest', alt. 1160 m, 4.7.2005, HS; 2 subad., along a brooklet in 'Paranesti Virgin Forest', alt. 1000 m, 6.7.2005, HS.

The Green Lizards is the second common lizard in the Western Rhodopes after the Common Wall Lizard. The localities have no number and the range of the species is not mapped. It is rarer above 1000 m a.s.l., but on slopes with southern exposure it occurs up to 1600 m. The majority of the samples examined from Bulgarian Rhodopes belong to *L. viridis viridis*. Transitional morphotypes (to *L. viridis meridionalis*) were rarely encountered in the lower eastern and northern foothills of the mountain.

***Darevskia praticola* (Eversmann, 1834)**

Original data

Bulgaria: 1 m, near Panichkovo, alt. 700 m, 26.5.2004, D. Duhalov & P. Stoev [1]; 3 m, 2 km along the road before Mostovo, alt. 995 m, 2.7.2004, NTz [2]; 1 m, 1 km W of Mostovo, valley of Sushitsa River, alt. 850 m, 2.7.2004, NTz [3]; 1 ad., on the road Devin–Mihalkovo (5 km from Devin), alt. 700 m, 25.4.2002, VB; idem, 2 ad., 21.5.2005, GP & D. Plachiyski [4]; 5 ad., Golyamoto Burdo, between Devin and Stomanovo (7 km from Devin), alt. 1100 m, 20.5.2005, GP & D. Plachiyski [5].

The Meadow Lizard was previously not known from the Western Rhodopes in Bulgaria. We found it in deciduous (beech and oak forests) woodlands, which are the species most preferred habitats (Fig. 10). Although the present records are scattered, we presume that further field surveys will prove its occurrence in other areas as well. There are no records of the Meadow Lizard from the Greek part of the Western Rhodopes though it was found in the Eastern Rhodopes where the southernmost points within its European range lie (HELMER & SCHOLTE, 1985). Locality [5] is the uppermost one ever recorded in Bulgaria.

***Ophisops elegans* Ménétriés, 1832**

Original data

Greece: 1 ad., near Tangeo, 10 km N of Iasmos, alt. 100 m, 20.5.2004, HS [1].

The only known locality in the Greek Western Rhodopes is in fact the westernmost point within the range of the species (Fig. 10). Formerly it was known only from Evros prefecture (STRIJBOSCH & VAN DER WINDEN, 1999; PETROV, 2004). There the Snake-eyed Lizard was found in big numbers on dry, southern and bushy slopes. It is obviously rare at the margins of its European distribution, because only one male was found during the intensive searches in Kompsatos valley and particularly around Iasmos.

***Ablepharus kitaibeli* Bibron & Bory, 1833**

Published data

Bulgaria: Karabuin Site on the southern bank of Dospat Dam, alt. 1250 m, 17.9.1934 [1] (BESHKOV, 1961).

Original data

Bulgaria: Mostovo, alt. 950 m, 14.7.1987, M. Vlašin pers. comm. to VB [2]; 1 ad., below Mostovo close to Vodnata Peshtera Cave, alt. 800 m, 21.10.2001, BP & VB [3]; 1 spec., near Vacha Dam barrage, alt. 500 m, 28.4.2001, NTz [4].

The Snake-eyed Skink is amongst the rarest reptiles, which occur in the core of the Western Rhodopes (Fig. 12). The species is nowhere very common or abundant. Its occurrence is usually patchy and discontinuous. We presume that it occurs in the Greek part of the mountain because it was found to be locally common in the Eastern Rhodopes Mt. (HELMER & SCHOLTE, 1985; PETROV, 2004).

***Zootoca vivipara* Jacquin, 1787**

Published data

Bulgaria: 1 spec., Site Beglika, alt. 1400 m, 11.5.1932 [1]; 4 spec., Karlaka Summit, alt. 2178 m, 27.6.1924 [2] (BURESCH & ZONKOW, 1933).

Original data

Bulgaria: 1 ad, 1 km E of Prespa Summit, alt. 1800 m, 21.7.2001, VB [3]; 3 subad., 1 f, 1 km from Perelik Hut towards the summit, alt. 1950 m, 18.6.2002, HS & BP [4]; 2 ad., 6 km W of Dospat along the southern bank of Dospat Dam, alt. 1230 m, August 1991, BP; idem., 1 m, 2 f, 1 juv, 16.6.2002, HS & BP; idem., 2 f, Summer of 1992, Z. Arnaudov

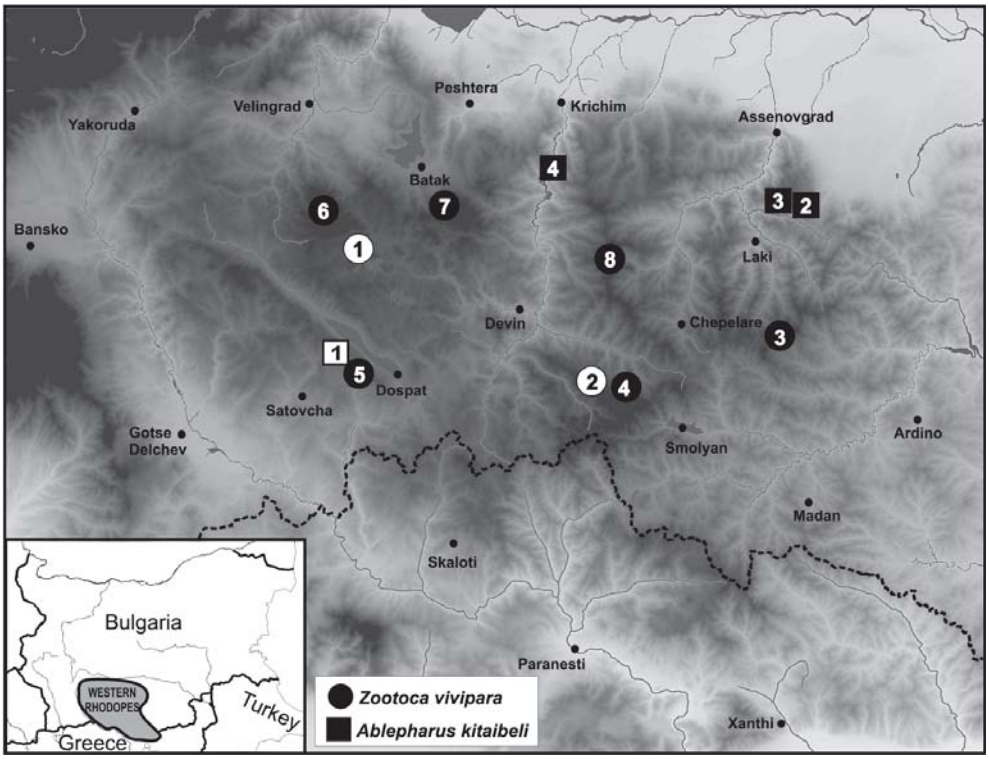

Fig. 12. Distribution of *Zootoca vivipara* and *Ablepharus kitaibeli*.

[5]; 3 spec., below Golyama Syutkya Summit, alt. 2000 m, 12.6.1995, NTz [6]; 1 spec., Batashki Snezhnik Summit, alt. 2000 m, 14.6.1995, NTz [7]; 1 spec., Golyam Persenk Summit, alt. 2050 m, 8.9.2004, NTz [8].

The occurrence of the Viviparous Lizard is confined to the highest parts of the mountain from 1200 m up to 2178 m a.s.l Fig. 12). It is noteworthy to mention than locality [4] "Perelik Hut" is the southernmost point of its wide distribution in Palearctica. The species was searched by the authors and other herpetologists several times in the Greek Rhodopes but all attempts so far failed to prove its occurrence south of the Perelik Range.

***Eryx jaculus* (Linnaeus, 1758)**

Published data

BULGARIA: 1 m, L_{body}= 39 cm, Parvenets, above the village, 6.4.1965, A. Darakchiev [1] (BESHKOV et al., 1967).

Original data

BULGARIA: Assenovgrad, Assenova Krepost Castle and Visokata Pesht, alt. 350-500 m, pers. comm. to VB [2].

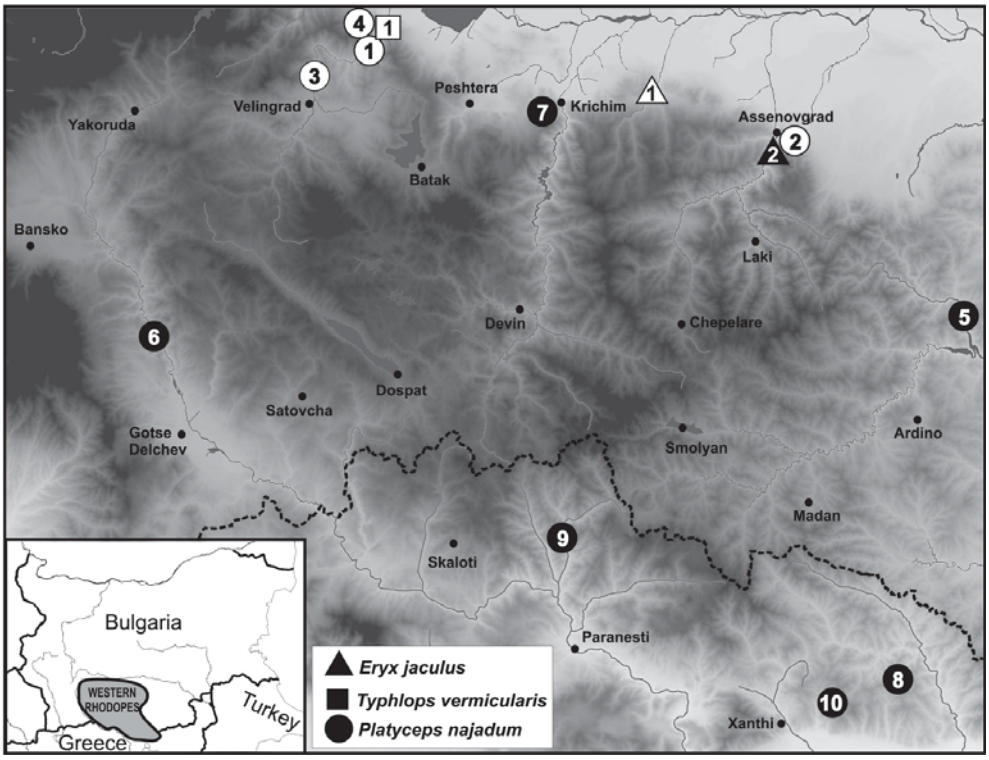

Fig. 13. Distribution of *Eryx jaculus*, *Typhlops vermicularis* and *Platyceps najadum*.

The Sand Boa is known from only two points situated in the northern Rhodopean foothills up to ca. 300 m a.s.l (Fig. 13). It is quite probable that the species will be found in other localities along the northern (Bulgarian) and southern (Greek) Rhodopean foothills where proper habitats are available. It was found not far from the borders of the studied region in Greece, between Kerasea and Poa in Papikio Mt. (NW of Komotini) at 1050 m a.s.l. (ASIMAKOPOULOS, 1997b).

Typhlops vermicularis **Merrem, 1820**

Published data

Bulgaria: 1 spec., Varvara, at the second thermal spring, 6 km in Eli-Dere Gorge (now Chepinska River Gorge), May 1908 [1] (KOWATSCHEFF, 1912) (Fig. 13).

The record of the Worm Snake has remained unproved for almost a century. The locality was almost fully destroyed after intensive building took place in the middle of the XX century. Recovery however is not impossible considering the low research efforts made in the last 100 years.

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

Published data

Bulgaria: Eli-Dere Gorge (near Chepinsnka River Gorge) [1] (KOWATSCHEFF, 1912); near Assenovgrad [2] (KOVACHEV, 1917); 1 spec., near Ladjene (now Velingrad), 20.7.1933 [3]; near Semchinovo, 17.7.1927 [4]; Assenova Krepost Castle (above Assenovgrad), 10.3.1932 [2] (BURESCH & ZONKOW, 1934).

Original data

Bulgaria: Assenovgrad, Assenova Krepost Castle, 1960-2000, pers. comm. to VB [2]; several specimens, 1.5 km W of the mouth of Davidkovska Arda River, alt. 450 m, 5-10.5.1995, D. Duhalov [5]; Mesta, Mesta River Valley, alt. 650 m, 25.7.1994, I. Pashaliiski (reported to VB) [6]; 1 ad, above Krichim, Izgoryaloto Gyume Reserve, alt. 550 m, 26.7.2004, S. Lazarov [7].

Greece: 1 ad., near Tangeo, 12 km N of Iasmos, alt. 300 m, 13.5,1998, HS [8]; 3 ad., near Thermia Paranestiou, 33 km N of Paranesti, alt. 550 m, 15.5.1998, HS [9]; 1 ad., in fields near Amaxades, 15 km E of Xanthi, alt. 45 m, 11.6.2002, HS [10].

The Dahl's Whip Snake occurs in the Western Rhodopes only along several deep river valleys (e.g. Chaya and Mesta Rivers in Bulgaria and Kompsatos River in Greece) (Fig. 13). Present data show low population density in most of the Bulgarian localities [e.g. 6-8]. In Greece however it is relatively common considering the proper climatic conditions and habitat availability. We presume that the occurrence of the Dahl's Whip Snake in other sites at the foot of the Western Rhodopes is highly probable.

***Dolichophis caspius* (Gmelin, 1789)**

Published data

Bulgaria: 1 spec., near Ladjene (now Velingrad), alt. 800 m, 11.5.1923 [1] (BURESCH & ZONKOW, 1934).

Original data

Bulgaria: Bachkovski Monastery, alt. 400 m, 16.7.1987, M. Vlašin pers. comm. to VB [2]; 1 ad, between Kozarsko and Zhrebichko, alt. 500 m, summer of 1968, VB [3]; Bratsigovo, alt. 450 m, summer of 1968, VB [4]; 1 ad, 3 km upstream of Varbinski Most Bridge along Arda river, alt. 700 m, 9.10.1998, VB [5]; 1 ad, 1 km downstream of the bridge below Kitnitsa, alt. 400 m, August 1999, BP & VB [6]; 1 ad, 4-5 km before Bezvodno from Zhenda, alt. 500 m, 26.7.2001, VB [7]; 1 juv. above Perushtitsa, Yazovira, alt. 350 m, 6.10.1990, BP [8]; 1 m, KOR, Gospodintsi, alt. 575 m, L_{body}= 168 cm, L_{tail}= 42 cm, 6.6.1999, BP & B. Barov [9]; 1 spec., near Kostandovo, alt. 800 m, 4.7.1994, NTz [10]; 1 spec., S of Ablanitsa, alt. 550 m, 30.4.2001, NTz [11]; 1spec., Narechenski Bani, alt. 600 m, 4.6.2003, NTz [12];

1 ad., Krichim, Izgoryaloto Gyume Reserve, alt. 450-500 m, 1.7.2004, NTz [13]; 1 ad, KOR, between Smolyan and Ustovo, alt. 800 m, 24.9.2005, GP & S. Avramov [14].

Greece: 1 subad., KOR, on the road 10 km NW of Xanthi, alt. 400 m, 14.5.1998, HS [15]; 1 subad., 4 km N of Paranesti, alt. 250 m, 14.5.1998, HS [16].

The Large Whip Snake occurs at the lower belts of the Western Rhodopes (Fig. 14). In the majority of cases it was found along roads within broader river valleys. Environmental conditions do not favor the occurrence of this snake and it was only occasionally found in the core of the mountain [e.g. 1, 5]. Presumably it is much more common in the foothill areas as revealed by the available field records.

***Elaphe sauromates* (Pallas, 1814)**

Published data

Greece: 3,5 km SW of Echinos, prefecture of Xanthi, 23.5.1980 [1] (CHONDROPOULOS, 1989).

The only available record comes from the Greek part of the studied region (Fig. 14). In Bulgaria, the species was found close to the Rhodopean foothills (N of Byaga, Distr. Peshtera), unpublished record of V. Beshkov.

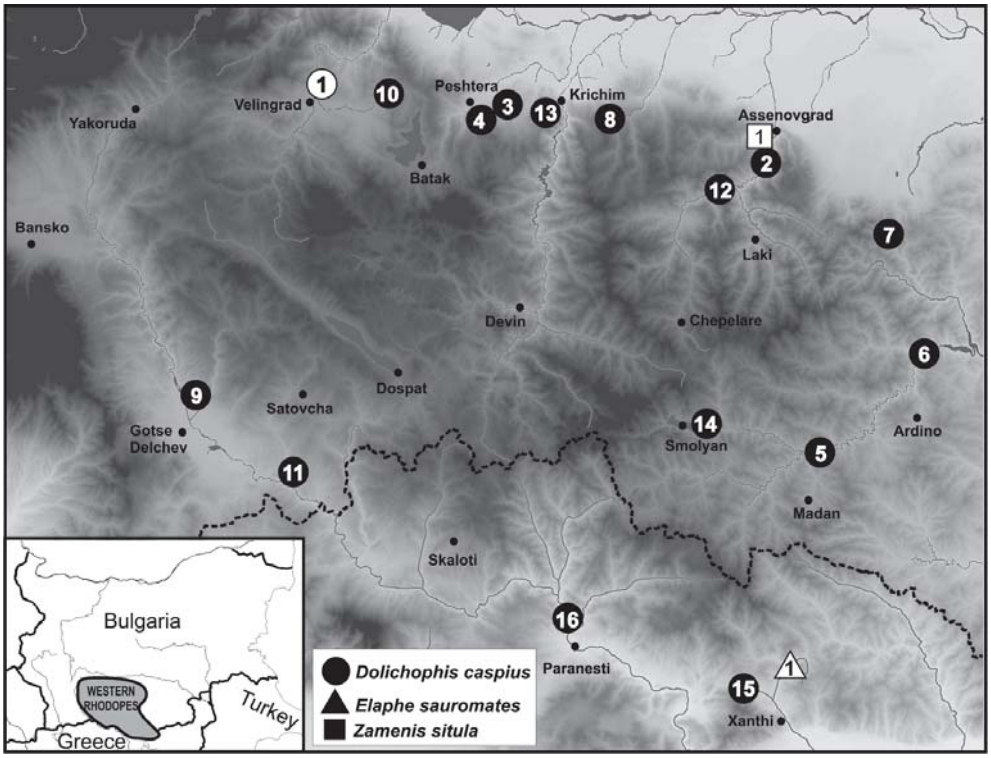

Fig. 14. Distribution of *Dolichophis caspius*, *Elaphe sauromates* and *Zamenis situla*.

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

Published data

BULGARIA: Chepelare, alt. 1100 m [1] (KOWATSCHEFF, 1912); near Assenovgrad [2] (KOVACHEV, 1917); 1 spec., near Ladjene (now Velingrad), 4.6.1932 [3]; 1 spec., Yugovo, 15.6.1928 [4] (BURESCH & ZONKOW, 1934).

Original data

BULGARIA: 1 juv, L_{body}= ca. 30 cm, Dobrostan, Martsiganitsa Hut, 94 m within Topchika Cave, alt. 990 m, 28.5.1968, VB [5]; 1 ad, Hut Akademik (formerly Rodopski Partizanin Hut), alt. 590 m 30.4.1989, P. Petkov [6]; Bachkovo, Ayasmoto above Bachkovski Monastery, alt. 450 m, July 2001, S. Beshkov [7]; 1 ad, Assenovgrad, below Assenova Krepost Castle, alt. 400 m, July 2001, S. Beshkov [2]; 1 ad, KOR, Leska, alt. 675 m, June 2005, S. Beshkov [8]; 1 juv. L_{body}= 34 cm, L_{tail}= 5.5 cm, Oreshets, junction towards Dobrosan, alt. 850 m, 21.5.1998, BP [9]; 1 ad. L_{body}= ca. 120 cm, above Perushtitsa, Manastira, alt. 450 m, 31.5.1998, BP [10]; 1 juv., KOR, above Zlatograd on the road to Madan, alt. 900 m, 10.5.2005, BP & NTz [11]; 1 ad, KOR, L_{body}= 120 cm, 2 km south of Teshel on the road to Trigrad, alt. 1000 m, 18.9.2005, BP [12]; 1 spec., Draginovo, alt. 800 m, 16.7.1993, NTz [13]; 1 spec., Rakitovo, alt. 800 m, 3.07.1994, NTz [14]; 1 spec., Smolyan, alt. 650 m, 18.07.1997, NTz [15]; 1 spec.

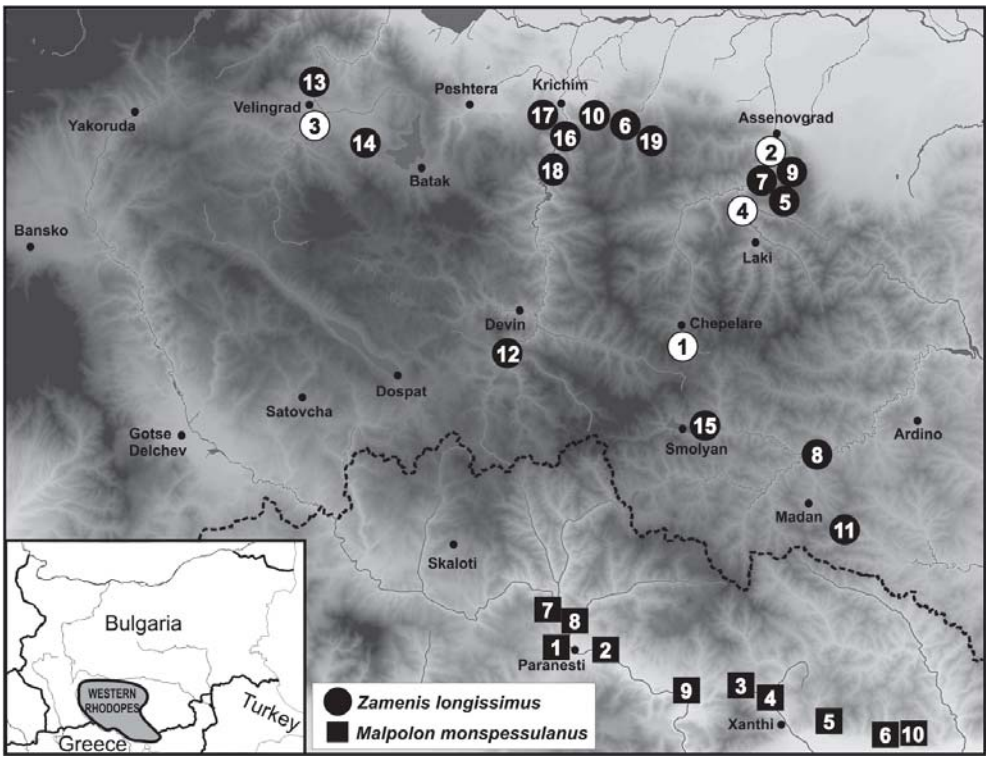

Fig. 15. Distribution of *Zamenis longissimus* and *Malpolon monspessulanus*.

near Vacha Dam barrage, alt. 500 m, 28.4.2001, NTz [16]; 1 ad., Krichim, Izgoryaloto Gyume Reserve, alt. 450-500 m, 1.7.2004, NTz [17]; 4 ad, KOR, between Krichim and Mihalkovo along Vacha Dam, alt. 400-500 m, summer of 1995, A. Stojanov [18]; 1 ad., KOR, Boykovo, àlt. 1120 m, 10.6.2005, GP & O. Todorov [19].

Greece: 1 subad., on the road 15 km N of Paranesti, alt. 350 m, 15.5.1998, HS [20].

We presume that with regard to the proper environmental conditions, the Aesculapian Snake is far more common in the Western Rhodopes than revealed by the available field records (Fig. 15).

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

Published data

Bulgaria: Stanimaka (now Assenovgrad) [1] (KOWATSCHEFF, 1912).

Since its discovery there have been no field records of Leopard Snakes close to Assenovgrad (Fig. 14). The locality is quite isolated and stays far from the recent range of the species in Bulgaria (BESHKOV & NANEV 2002). We consider that the survival of this local population is hardly possible.

***Natrix natrix* (Linnaeus, 1758)**

Published data

Bulgaria: Bachkovski cloister (Bachkovski Manastir), alt. 450 m, 8.8.1905 [1]; 3 spec., near Ladjene (now Velingrad), 6.7.1925 [2] (BURESCH & ZONKOW, 1934).

Original data

Bulgaria: Hvoyna, alt. 750 m, 17.7.1987, M. Vlašin pers. comm. to VB [3]; Mostovo, alt. 950 m, 14.7.1987, M. Vlašin pers. comm. to VB; idem, 1 f (melanistic), 24.6.1988, VB [4]; Yugovo, alt. 750 m, 13.7.1987, M. Vlašin pers. comm. to VB [5]; 1 ad, Varbina, Varbinski Most Bridge, alt. 600 m, 8.10.1998, VB [6]; 1 ad, 4 km upstream of Varbinski Most Bridge along Arda River, alt. 625 m, 11.10.1998, VB [7]; 1 ad (melanistic), Orfei Hut above Borino, alt. 1100 m, 17.7.1977, VB & D. Jameson [8]; 2 skins, junction towards Stomanevo between Mihalkovo and Devin, 650 m, 2.9.2001, BP & VB [9]; idem., 1 juv. L_{body}= 17 cm, in Vacha River, 21.5.2005, GP & D. Plachiyski [9]; 1 ad, Hadzhidimovo, along Mesta River, alt. 475 m, 10.5.1966, VB [10]; 1 ad, between Grohotno and Nastan (Devin), alt. 800 m, 18.5.1966, VB [11]; 1 ad, above Smolyan, Smolyanski Lakes, alt. 1300 m, 16.7.1977, VB & D. Jameson; idem., 1 ad, July 1985, VB [12]; 1 ad "*persa*", above Trigrad towards TV tower, alt. 1300 m, June 2005, S. Beshkov [13]; 1 m "*persa*", KOR, 2 km from Dospat towards Borino, alt.1350 m, 7.6.1999, BP & B. Barov [14]; 1 ad., L_{body}= ca. 60 cm, below Mostovo close to Vodnata Peshtera Cave, alt. 900 m,

21.10.2001, BP & VB [15]; idem., 1 ad, alt. 750 m, 2.7.2004, NTz [15]; 1 ad., L_{body} = 75 cm, the junction towards Chudnite Mostove on the road to Zabardo, alt. 1100 m, 11.8.2004, BP [16]; 1 ad, KOR, 6 km W of Dospat along the southern bank of the dam, alt. 1230 m, 11.5.2005, BP & NTz [17]; 1 spec., Draginovo, alt. 800 m, 16.7.1993, NTz [18]; 1 spec., near Dorkovo, alt. 850 m, 18.7.1993, NTz [19]; 1 spec., Rakitovo, alt. 800 m, 3.7.1994, NTz [20]; 1 spec., Smolyan, alt. 600 m, 18.7.1997, NTz [21]; 1 spec., near Krichim Dam barrage, alt. 450 m, 28.4.2001, NTz [22]; 1 ad., Krichim, Izgoryaloto Gyume Reserve, alt. 450-500 m, 1.7.2004, NTz [23]; 2 juv., L_{body} = 15 and 16 cm, in ponds at Golyamoto Burdo, between Devin and Stomanovo (7 km from Devin), alt. 890 m, 20.5.2005, GP & D. Plachiyski [24].

Greece: 1 ad., KOR, on the road 15 km N of Paranesti, alt. 350 m, 15.5.1998, HS [25]; 1 subad., on the road along Kompsatos River 8 km N of Iasmos, alt. 290 m, 19.5.2004, HS [26]; 1 ad., KOR, in Kompsatos valley 10 km N of Iasmos, alt. 100 m, 1.7.2005, HS [27]; 1 subad., on the road 12 km W of 'Base Camp' of 'Paranesti Virgin Forest', alt. 900 m, 23.5.2004, HS [28].

Beside the few specimens published in the literature we have added ca. 27 new points of the Grass Snake (Fig. 16). The lined "*persa*" morphotype [e.g. 13, 14] is far less common compared to the uniform "*natrix*" type. However namely a "*persa*" was found at the highest point (1350 m) of the species distribution in the Western Rhodopes [14].

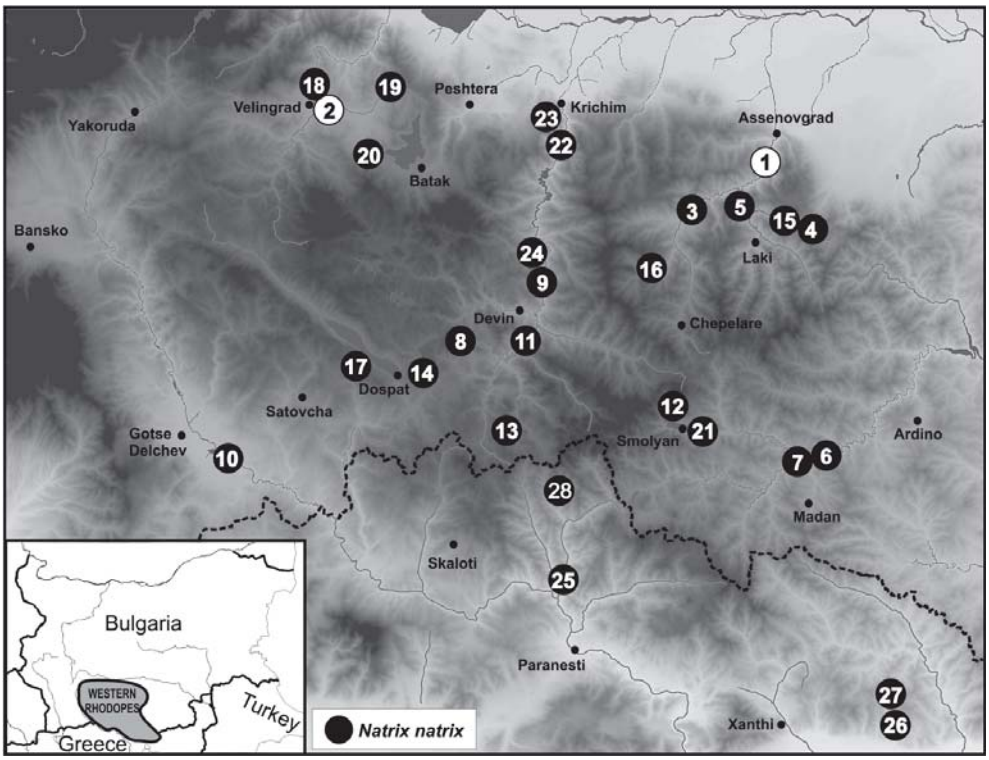

Fig. 16. Distribution of *Natrix natrix*.

Natrix tessellata **(Laurenti, 1768)**

Original data

Bulgaria: Hvoyna, alt. 750 m, 17.7.1987, M. Vlašin pers. comm. to VB [1]; Mostovo, alt. 950 m, 14.7.1987, M. Vlašin pers. comm. to VB [2]; Varvara, alt. 450 m, the thermal baths, 21.5.1972, VB [3]; 1 ad, 1 km S of Assenovgrad, in Chaya River, alt. 300 m, 27.7.2001, VB [4]; 1 ad, L_{body}= ca. 35 cm, 1.5 km from Yugovski Hancheta towards Yugovo, alt. 500 m, 17.10.2001, BP & VB [5]; 1 juv, 4 km from the junction towards Shiroka Laka on the road Devin-Teshel, alt. 820 m, July 2005, S. Beshkov [6]; 3 spec., 5 km S of Varvara, Valley of Chepinska River, alt. 500 m, 14.5.2000, NTz [7]; 1 spec., near Krichim Dam barrage, alt. 450 m, 28.4.2001, NTz [8]; 1 spec., near Vacha Dam barrage, alt. 520 m, 28.4.2001 NTz; idem., 1 ad., 12.7.2005, GP & O. Todorov [9]; 1 juv., L_{body}= 18 cm, in Vacha River, between Devin and Mihalkovo (4,5 km N of Devin), alt. 700 m, 21.5.2005, GP & D. Plachiyski [10]; many specimens between Srednogortsi and mouth of Davidkovska River along Arda River, alt. 700-420 m, 1998-2002, VB and VB & BP [11].

The Dice Snake is a common snake only along the major rivers such as Vucha, Chaya and Arda Rivers (Fig. 17). Single specimens were rarely found in smaller tributaries. The species probably lives in the Greek foothills as well, though no data are available so far.

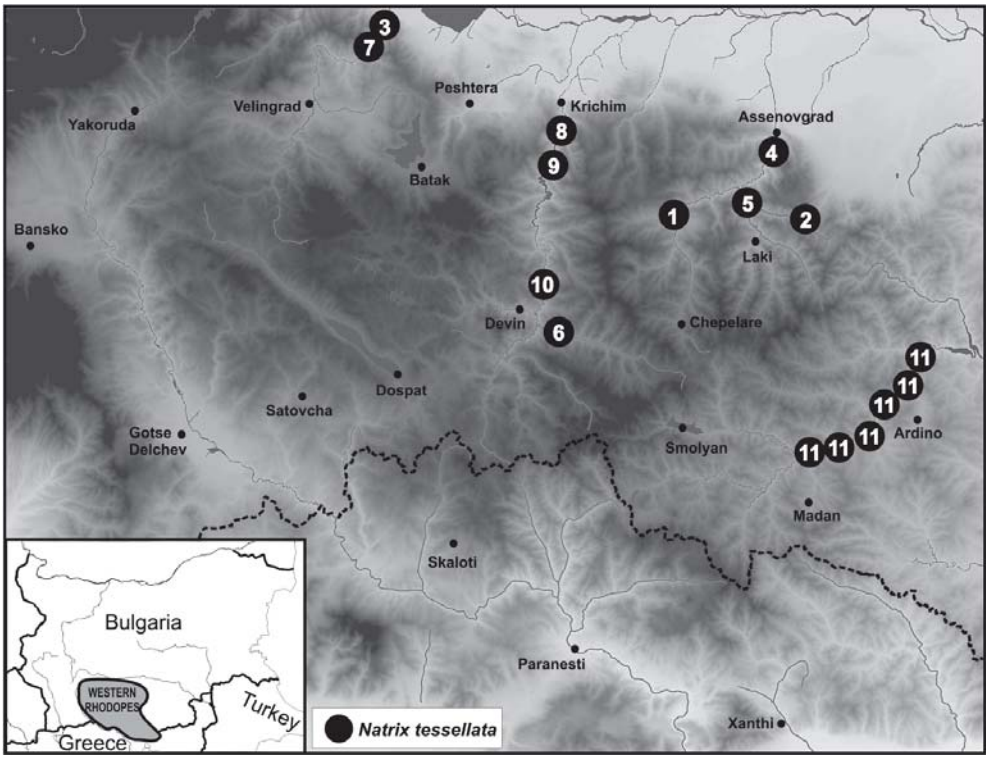

Fig. 17. Distribution of *Natrix tessellata*.

***Coronella austriaca* (Laurenti, 1768)**

Published data

Bulgaria: on the road from Hvoyna to Byala Cherkva, alt. 1200-1400 m [1] (KOWATSCHEFF, 1912); 1 spec., Batashko plain, alt. 1050 m, 12.4.1930 [2]; 2 spec., near Ladjene (now Velingrad), 20.6.1925 [3]; 4 spec., on the road from St. Petka to Ladjene (now Velingrad), May 1925 [4]; 1 spec., on the road from Florovo (now Tsvetino) to Ladjene (now Velingrad), 21.4.1925 [5]; 2 spec., Uluk-Gidik Summit above Dyovlen (now Devin), alt. 1000 m, 25.6.1924 [6]; near Chepelare, alt. 1100 m. 30.7.1931 [7]; Resort Byala Cherkva, alt. 1550 m, 2.8.1931 [8] (BURESCH & ZONKOW, 1934).

Original data

Bulgaria: Hvoyna, alt. 750 m, 17.7.1987, M. Vlašin pers. comm. to VB [9]; 1 ad, Peshtera, entrance of Snezhanka Cave, alt. 860 m, 25.6.1988, VB [10]; 1 ad, KOR, above Smolyan, Smolyanski Lakes, alt. 1250 m, 16.7.1977, VB & D. Jameson [11]; 1 ad, KOR, on the road below Borovo, alt. 1000 m, 21.7.2001, VB [12]; 1 ad, KOR, on the road at 500 m from Belite Brezi Hut towards Ardino, alt. 875 m, 28.6.1993, VB [13]; 1 f, between Mihalkovo and Lyaskovo, alt. 900 m, Autumn of 2000, K. Djingov [14]; Varvara, the thermal baths, alt. 450 m, 21.5.1972, VB [15]; 1 m, L_{body}= 59 cm, L_{tail}= 11 cm, above Perushtitsa, Yazovira,

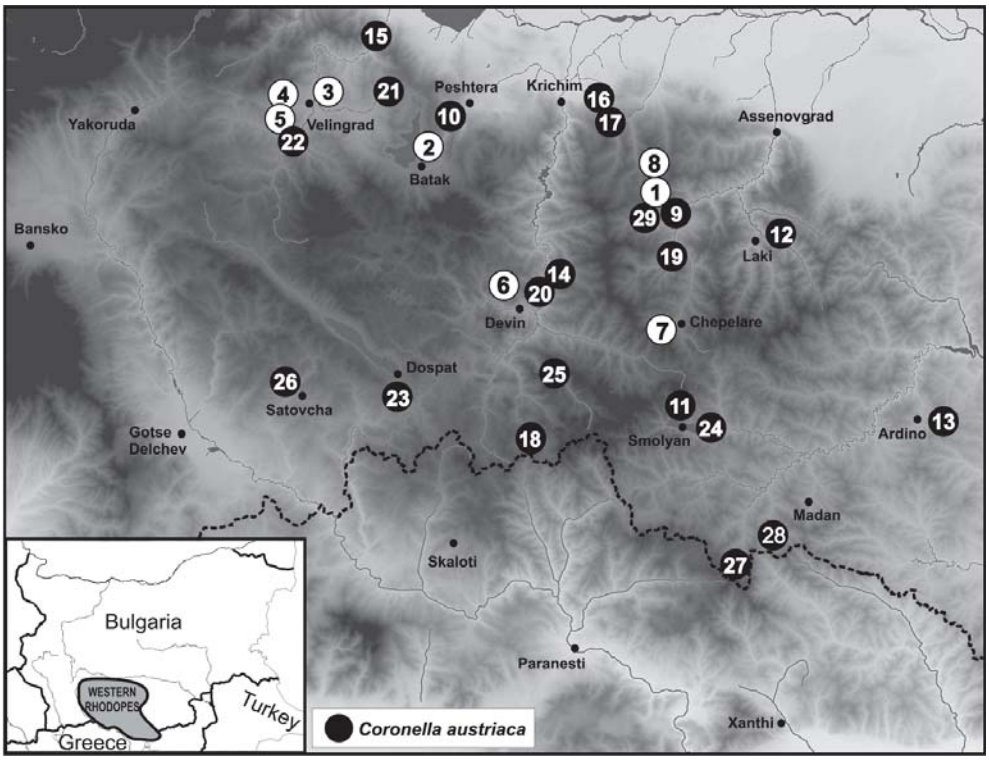

Fig. 18. Distribution of *Coronella austriaca*.

alt. 400 m, 19.5.1991, BP [16]; 1 f, L_{body}= 58 cm, L_{tail}= 7 cm, below Bryanovshtitsa hut, alt. 1000 m, 29.9.1991, BP [17]; 1 juv. in the Cave Forgovo, Forgovo Dere, Kesten, alt. 1360 m, 11.11.2000, BP [18]; 1 ad. L_{body}= 40 cm, KOR, 1 km towards Zabardo from the road N 86, alt. 850 m, 11.8.2004, BP [19]; 1 ad., KOR, 4 km N of Devin, alt. 680 m, 17.9.2005, BP [20]; 1 spec., near Dorkovo, alt. 850 m, 18.7.1993, NTz [21]; 1 spec., near Grashevo, alt. 1100 m, 5.7.1994 NTz [22]; 1 spec., 2 km from Dospat towards Satovcha, alt. 1220 m, 29.4.2001, NTz [23]; 1 spec., 1 km before Smolyan (Ustovo), alt. 650 m, 18.07.1997, NTz [24]; 1 spec., between Teshel and Mugla, alt. 1250 m, 29.4.2001, NTz [25]; 1 spec., Bistritsa River Valley between Satovcha and Pletena, alt. 1100 m, 30.4.2001, NTz [26]; 1 m, L_{body}= 43 cm, L_{tail}= 8 cm, under stone between Koritata and Tsigansko Gradishte (Chengeneto), alt. 1000 m, 4.9.2005, GP & D. Plachyiski [27]; 1 ad., KOR, Alamovtsi, alt. 800 m, 6.9.2005, GP & V. Trifonov [28]; 1 ad, along a dirt road between Orehovo and Hut Persenk, alt. 1550 m, 7.6.2004, A. Westerström [29].

The Smooth Snake is the most common snake in the Western Rhodopes though we did not find it in Greece nor was it published from that region (Fig. 18). It was found up to 1550 m a.s.l. in Bulgaria [29] but we presume that it could occur even higher.

***Malpolon monspessulanus* (Hermann, 1804)**

Original data

Greece: 1 ad., KOR, on the road just W of Paranesti, alt. 215 m, 11.6.2002, HS [1]; 1 ad., KOR, on the road near Sterna, 8 km E of Paranesti, alt. 110 m, 11.6.2002, HS [2]; 1 ad., KOR, on the road near Gerakas, 11 km NW of Xanthi, alt. 360 m, 11.6.2002, HS [3]; 1 ad., KOR, on the road near Gorgona/Eoia, 7 km NW of Xanthi, alt. 240 m, 11.6.2002, HS [4]; 1 ad., in fields near Amaxades, 15 km E of Xanthi, alt. 45 m, 11.6.2002, HS [5]; 1 ad., KOR, near Koptero, 5 km W of Iasmos, alt. 40 m, 11.6.2002, HS [6]; 1 ad., KOR, on the road 6.5 km N of Paranesti, alt. 200 m, 24.5.2004, HS [7]; 1 ad., KOR, on the road 3 km N of Paranesti, alt. 240 m, 24.5.2004, HS [8]; 1 ad., KOR, on the road 8 km E of Stavroupoli, alt. 120 m, 24.5.2004, HS [9]; 1 ad., KOR, on the road 2 km W of Iasmos, alt. 40 m, 7.6.2004, HS [10].

The Montpellier Snake was found only in the southern (Greek) foothills of the Western Rhodopes up to 360 m a.s.l (Fig. 15). The species in Greece seems to be more common than the Large Whip Snake.

***Vipera ammodytes* (Linnaeus, 1758)**

Published data

Bulgaria: Stanimaka (now Assenovgrad) [1]; Bachkovski cloister (Bachkovski Manastir), alt. 450 m [2] (KOWATSCHEFF, 1912); 1 spec., near Rakitovo, alt. 800 m, 20.6.1926 [3]; 1 spec., Peshtera, alt. 300 m, 21.6.1924 [4] (BURESCH & ZONKOW, 1932); 1 spec., on the junction from Trigrad towards, Shabanitsa Site, alt. 1100 m, 13.5.1966 [5]; 1 spec.,

between Shiroka Laka and Bedenski Bani, alt. 1050 m, 14.5.1966 [6] (BESHKOV et al., 1967); Assenovgrad, Momina Salza Hut, alt. 500 m [7] (BESHKOV & DUSHKOV, 1981); Mihalkovo [8] (CHRISTOV & BESHKOV, 2000).

GREECE: near Echinos, pref. Xanthi, 23.5.1980 [9] (CHONDROPOULOS, 1989).

Original data

BULGARIA: Hvoyna, alt. 750 m, 17.7.1987, M. Vlašin pers. comm. to VB [10]; Mostovo, alt. 950 m, 14.7.1987, M. Vlašin pers. comm. to VB [11]; 1 ad, 2 km from the junction to Chairskite Lakes on the road Teshel-Trigrad, alt. 1050 m, 20.6.1966, VB [12]; several spec., Lyaskovo, alt. 1100, 1997-2001, K. Djingov [13]; 1 ad, KOR, Leshtak, along Arda River, alt. 675 m, 10.9.1998, VB [14]; 1 ad, Dyadovtsi, Dyavolskiya Most Bridge, alt. 540 m, August 1999, VB & BP [15]; 1 ad, 2 km downstream of Dyavolskiya Most Bridge along Arda River, alt. 510 m, August 1999, VB & BP [16]; 1 ad, below Bashevo, along Arda River, alt. 425 m, August 1999, VB & BP [17]; 1 ad, 4-5 km before Bezvodno from Zhenda, alt. 500 m, 26.7.2001, VB [18]; 1 ad, KOR, 2.5 km before Oreshets from Gornoslav, alt. 835 m, 20.10.2001, BP & VB [19]; 1 ad, KOR, 4 km before Oreshets from Gornoslav, alt. 750 m, 21.10.2001, BP & VB [20]; 1 juv. L_{body} = ca. 20 cm, on the road to Skobelevo above Perushtitsa, Manastira, alt. 450 m, 12:30 h, 31.5.1998, BP [21]; 1 ad. on the road, 16 h, below Osenovo, Site Dormenovi Skali, alt. 800 m, 2.5.1998, G.

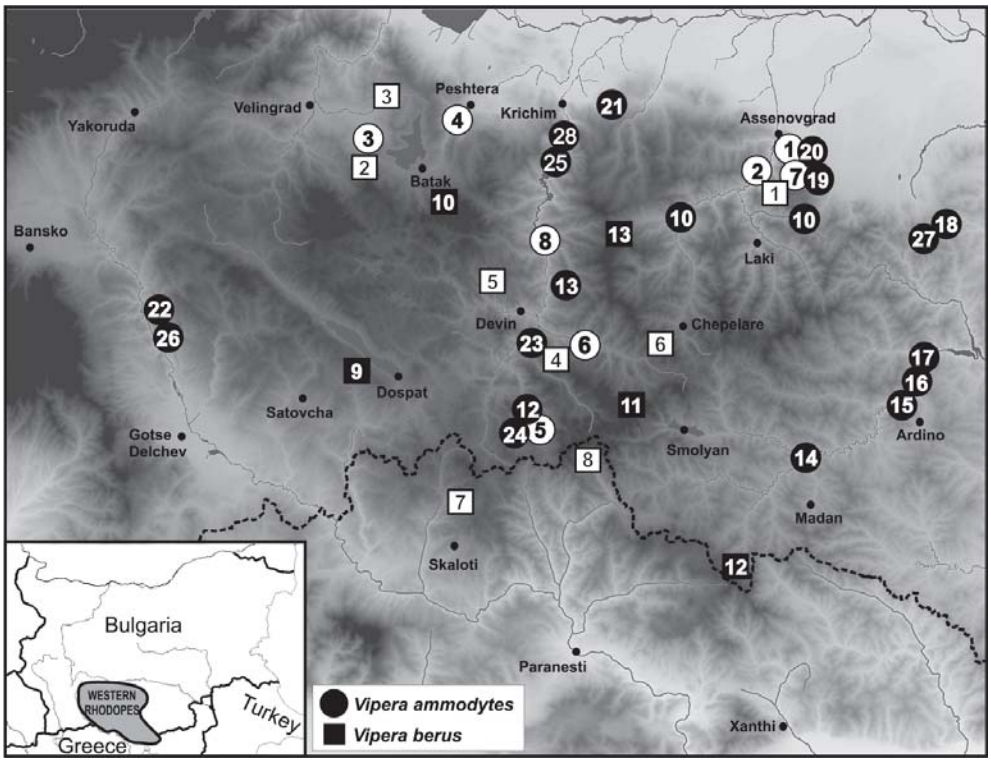

Fig. 19. Distribution of *Vipera ammodytes* and *Vipera berus*.

Stoyanov [22]; 1 f, KOR, 1 km S of Nastan (Devin) towards Teshel, alt. 770 m, 18.9.2005, BP [23]; 1 spec, KOR in Trigrad, alt. 1100 m, June 2005, S. Beshkov [24]; 1 ad., near Vacha Dam barrage, alt. 500 m, 28.4.2001, NTz [25]; 3 f, 2 m, junction to Bukovo on the road Bansko-Gotse Delchev, alt. 600 m, 31.4.2001, NTz [26]; 1 ad., Zhenda, Zhenda Reserve, alt. 750 m, 1.7.2004 NTz [27]; 1 m, L_{body}= 38 cm, L_{tail}= 5 cm, along Vucha Dam, close to Chilingira Restaurant, alt. 600 m, 11.7.2005, GP & O. Todorov [28].

The Nose-Horned Viper is a relatively common species in sunny, dry and rocky habitats in the Rhodopes. In such habitats it was found up to 1100 m [5, 23]. There are no data about the local population abundance but the species is much rarely encountered above 800 m. The only record from Greece hardly represents its true occurrence in the studied region (Fig. 19). All specimens found in the mountain belong to *V. ammodytes meridionalis.*

***Vipera berus* (Linnaeus, 1758)**

Published data

Bulgaria: near Bachkovski cloister (Bachkovski Manastir), alt. 450 m [1] (KOWATSCHEFF, 1912); 1 f (melanistic), near Rakitovo, alt. 800 m, 2.9.1930 [2] (The specimen was bred in captivity and gave birth to four juveniles with normal coloration); 1 spec. (melanistic), near Dorkovo, alt. 900 m, 5.9.1928 [3]; 1 spec., near Sarla Summit, near Dyovlen (now Devin), alt. 1900 m, 10.6.1930 [4]; 1 ad., L_{body}= 62 cm, Karabunar Summit, near Dyovlen (now Devin), alt. 1600 m, 28.8.1931 [5]; 1 spec., in a forested area above Chepelare, alt. 1400 m, (BURESCH & ZONKOW, 1932) [6]; Singirli-"Rhodopegebirge" (REUSS, 1930) [without number on the map].

Greece: Rodopi (IOANNIDIS & BOUSBOURAS, 1989); 1 f, Elatia area, on the borderline in the spring of the Giomourlou Stream, alt. 1450 m, 10.6.1995 [7] (BOUSBOURAS et. al., 1997); 1 ad., Zagradenia Forest, D. Vassiliades (A. Dimitropoulos det.) (DIMITROPOULOS & IOANNIDIS, 2002) [8].

Original data

Bulgaria: Dospat Dam, alt. 1200 m, 10.7.1987, M. Vlašin pers. comm. to VB [9]; 1 f, below Batashki Snezhnik Summit, alt. 2000 m, 14.6.1995, NTz [10]; 1 m, below Golyam Persenk Summit, alt. 1850 m, 8.9.2004, NTz [11]; 1 ad. (melanistic), L_{body}= 49 cm, L_{tail}= 8 cm, between Koritata and Tsigansko Gradishte (5 km from Koritata), alt. 1550 m, 4.9.2005, GP & D. Plachiyski [12]; 2 f (both melanistic), meadows along a dirt road between Orehovo and Persenk Hut, alt. 1450 m, 6-7.6.2004, A. Westerström [13].

Only few Adders were found in the last 60 years in the Western Rhodopes. It is obviously not abundant in all known localities. Some of the old records [e.g. 4, 5 and 6] were mapped with approximation (Fig. 19). Data from the Greek part of the mountain are scarce [7, 8] but some are still unpublished (M. Dimaki, pers. comm.) The locality [1] as

cited by the author is dubious considering its low altitude. All examined specimens from the studied region belong to *V. berus bosniensis*.

Discussion

The Western Rhodopes Mt. holds remarkably high herpetological diversity including 12 species of amphibians and 27 species of reptiles (Table 1). Diversity is high not only on a local scale but on a Balkan level as well. The majorities of the amphibians are common and occur in high densities though some species of frogs and toads were doubtless overlooked during the field studies. The most common species are *Salamandra salamandra*, *Rana temporaria*, *Rana graeca* and *Bufo bufo*. The newts, *Triturus* spp. were found in low numbers in few localities in the mountain.

The most common reptiles are *Podarcis muralis*, *Lacerta viridis*, *Anguis fragilis*, *Natrix natrix* and *Coronella austriaca*. Both terrapins (*Emys orbicularis* and *Mauremys rivulata*) are very rare and occur in low numbers along the borders of the mountain. Original and published records of tortoises (*Testudo* spp.) are much less in number compared to the bulk of old records, which were reported by the local people (V. Beshkov, unpublished) (Fig. 7-8). Occurrence of *Typhlops vermicularis* and *Zamenis situla* was not confirmed during the last 100 years. In our view, recovery of the Worm Snake close to Varvara in Bulgaria is possible. However, the survival of the Leopard Snake in the region of Assenovgrad is hard to believe.

Ophisops elegans and *Elaphe sauromates* are the rarest reptiles found in the mountain. Both were found with single individuals only in the southeastern foothills of the region. The Western Rhodopes form the southern-most point within the range of *Zootoca vivipara* and the western-most point of *Ophisops elegans. Darevskia praticola* and *Natrix tessellata* were recorded for the first time in the Western Rhodopes though both were not found in the Greek part so far. *Emys orbicularis, Mauremys rivulata*, *Testudo hermanni*, *T. graeca*, *Pseudopus apodus*, *Anguis fragilis*, *Lacerta trilineata*, *Ophisops elegans*, *Dolichophis caspius*, *Platyceps najadum*, *Natrix natrix*, *Zamenis longissimus* and *Malpolon monspessulanus* are reported for the first time in the Greek Western Rhodopes.

The herpetofauna of the Greek Western Rhodopes is far more diverse (32 species) considering that only 8% of the mountain is in Greece. Amongst the basic environmental prerequisites for the high species richness are the thermophilous plant communities

Table 1.
Species richness of the herpetofauna in the Western Rhodopes.

Order/Family	Western Rhodopes (8732 km^2 = 100%)	Bulgaria (8061 km^2 = 92%)	Greece (671 km^2 = 8%)
Salamandridae	4	4	3
Anura	8	8	8
Emydidae	2	1	2
Testudinidae	2	2	2
Sauria	12	10	9
Ophidia	11 (+2 extinct)	9 (+ 2 extinct)	8
TOTAL	**39 (+2 extinct)**	**34 (+2 extinct)**	**32**

T a b l e 2.
Chorotype classification of amphibians and reptiles found in the Western Rhodopes. Chorotype names follow VIGNA TAGLIANTI et al. (1999) with modifications by PETROV (in print). *Typhlops vermicularis* and *Zamenis situla* are not considered.

Chorotype	Amphibians	Reptiles	Species
1. Eurosiberian	1	2	*Rana temporaria*, *Zootoca vivipara*, *Vipera berus*
2. Turanian-European-Mediterranean	2	1	*Rana ridibunda*, *Bufo viridis*,*Emys orbicularis*
3. Central Asian-European-Mediterranean	-	1	*Natrix natrix*
4. Central Asian-European	-	2	*Lacerta agilis*, *Natrix tessellata*
5. Turanian-Mediterranean	-	7	*Testudo graeca*, *Ophisaurus apodus*, *Ophisops elegans*, *Dolichophis caspius*, *Platyceps najadum, Elaphe sauromates*
6. European-Mediterranean	2	-	*Salamandra salamandra*, *Hyla arborea*
7. European	3	2	*Triturus alpestris*, *Triturus vulgaris*, *Bufo bufo*, *Anguis fragilis*, *Coronella austriaca*
8. South European	2	4	*Bombina variegata*, *Rana dalmatina*, *Testudo hermanni*, *Lacerta viridis*, *Podarcis muralis*, *Zamenis longissimus*
9. Mediterranean	-	2	*Eryx jaculus*, *Malpolon monspessulanus*
10. Eastern Mediterranean	2	6	*Triturus karelinii*, *Rana graeca*, *Mauremys rivulata, Lacerta trilineata*, *Darevskia praticola*, *Podarcis erhardii*, *Podarcis taurica*, *Ablepharus kitaibelii*, *Vipera ammodytes*
Total species	**12**	**27**	

in the lower foothills, deciduous and mixed forests on slopes with southern exposure, presence of grassy highlands with subalpine zone, low population density and weak economic development. The high species diversity in Bulgaria (34 species) is favored by great habitat heterogeneity, mosaic distribution of proper microhabitats and widespread, non-intensive cattle breeding and patchy agricultural practices all over the mountain. The richest in species are the foothills covered with shrubs, oaks (*Quercus* spp.) and eastern hornbeam (*Carpinus orientalis*) forests up to ca. 600 m, where 10 amphibians (83%) and 24 species (89%) of reptiles were found. Occurrence of only 2 amphibians and 2 species of reptiles was proved above1800 m.

A provisional chorotype classification of the species found in the Western Rhodopes is presented in Table 2. The taxa *Rana graeca*, *Vipera berus bosniensis*, *Lacerta agilis bosnica* and *Podarcis erhardii* are endemics or subendemics to the Balkan peninsula. Their inclusion

in the listed chorotypes is provisional. The species from the Eurosiberian, European and European-Mediterranean chorotypes are the most common within the alpine, subalpine and highland belts of the mountain from ca. 1200 up to 2191 m a.s.l. The species from the Turanian-Mediterranean, Mediterranean, South-European and Eastern-Mediterranean chorotypes occur basically at lower altitudes but some (e.g. *Bombina variegata*, *Rana graeca*, *Podarcis muralis*) occur in the mountain up to 1600 m a.s.l. and rarely even higher.

Conservation issues

Several areas are recognized to hold greater species diversity. We can point as herpetologically hot spots two sites: Chaya River Valley between Assenovgrad and Bachkovski Monastery in Bulgaria (7 amphibians, 12 reptiles) and Kompsatos River Valley north of Iasmos (6 amphibians, 10 reptiles). Both areas follow deep mountain valleys, which offer diverse environmental conditions for the occurrence of many amphibians and reptiles. Additionally, the border gully of Mesta River, SmolyanskiLakes, Dospat Dam, Velingrad and Trigrad in Bulgaria and Paranesti Virgin Forest and Elatia in Greece hold representative herpetological diversity within the core of the mountain.

Considering the rich diversity of the local flora and fauna, many proposals for the establishment of a larger protected territory (e.g. Nature park), even a transboundary one, were repeatedly deposited in Bulgarian and Greek environmental institutions. None had completely worked out so far, though locally new protected territories (e.g. protected sites) were established in the Western Rhodopes. The greater part of the Greek Paranesti Virgin Forest (550 ha) is strictly protected. There are no protected territories declared for conservation of a given amphibian or reptile species or regional herpetological diversity in general. However, nearly the entire Western Rhodopes were recently proposed as NATURA 2000 site (50 1991 ha) in Bulgaria. Kompsatos Valley (Koilada Komsatou) near Komotini (Prefecture of Rodopi) was declared a Specially Protected Area. The Nestos Defile has also been declared a Specially Protected Area and an Aesthetic Forest. All these sites are included in the NATURA 2000 network, which also includes sites as Oros Chaidou-Koula & Gyro Koryfes, Periochi Elatia and Partheno Dasos Kentrikis Rodopis.

As the species with highest conservation value in the Western Rhodopes we can point *Triturus alpestris* because of its relict occurrence, *Ophisops elegans* because of its westernmost point within its range and *Eryx jaculus* because of its scattered occurrence and low population density. We highly encourage establishment of new protected sites and enforcement of proper management plans for these species.

Major threats for the herpetofauna of the Western Rhodopes is the loss of microhabitats on a local scale (e.g. drainage, forest fires at lower altitudes, etc.) and degradation of habitats on a larger scale (e.g. deforestation, planting of conifer plantations in the oak/beech belt). The substantial decrease in the traditional cattle breeding practices led to reduction of open areas and many pasture grounds turned to young, secondary forests (cf. BOUSBOURAS et. al., 1997). Another threat is the on-going building of small hydropower stations at the mountain rivers and construction of larger hydropower infrastructure (e.g. Tsankov Kamak Dam at Vacha River). The large dam of Thisavros at

Nestos River caused extensive damage to riverine habitats and threatens the stability of the Nestos delta. On a local scale, these activities alter the natural river flow but on a larger scale the riverine habitats are replaced with a reservoir ecosystem, which lead to regional climatic changes and replacements of species within plant and animal communities. The road net in the mountain is relatively sparse and only locally it is seasonally heavily used. Thus road mortality of amphibians and reptiles is relatively low and hardly affects the population abundance.

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Херпетофауна (Amphibia и Reptilia) на Западните Родопи (България и Гърция)

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(Р е з ю м е)

Западните Родопи (8732 km^2) са голяма трансгранична планина между България и Гърция. В по-голямата си част планината е покрита с иглолистни и смесени гори, а максималната височина достига до 2191 m. Статията обобщава всички публикувани херпетологични данни за България и Гърция и съобщава много нови находища и видове. Установено е изключително високо видово разнообразие: 12 вида земноводни (4 вида опашати и 8 вида безопашати) и 27 вида влечуги (2 вида сухоземни, 2 вида водни костенурки, 12 вида гущери, 11 вида змии). 34 вида са установени в Българската част на планината, 32 в Гърция. *Typhlops vermicularis* и *Zamenis situla* се считат за изчезнали в пределите на изследвания район. Най-често срещаните земноводни са *Salamandra salamandra*, *Rana temporaria*, *Rana graeca* и *Bufo bufo*. Най-широко разпространените влечуги са *Podarcis muralis*, *Lacerta viridis*, *Anguis fragilis*, *Natrix natrix* и *Coronella austriaca*. Направен е кратък зоогеографски анализ и са приложени карти за разпространението на повечето видове. Разгледани са природозащитни проблеми и заплахи имащи отношение към херпетофауната.