

## Orthoptera, Blattodea and Mantodea of Vrachanska Planina Mountains

ALEXI POPOV, DRAGAN CHOBANOV

**Abstract.** So far, 81 species of the orthopterid orders are found in Vrachanska Planina according to the published and original data (Orthoptera – 79 species, Blattodea and Mantodea – one species each). Other 6 species of Orthoptera have been recorded in the areas up to 5 km beyond the borders of the mountain. First records from Vrachanska Planina are reported here for 1 order, 1 superfamily, 2 families, 5 subfamilies, 8 tribes, 16 genera, 3 subgenera and 31 species. Published and original material of 70 species is checked and identified. A subspecies is synonymized: *Ephippiger ephippiger ephippiger* (Fiebig, 1784) (= *Ephippiger ephippiger balkanicus* Andreeva, 1985, **syn. n.**). Typical mountain species with a lower limit of distribution in Bulgaria running through the highest ridge of Vrachanska Planina are *Psorodonotus fieberi*, *Gomphocerus sibiricus* and *Myrmeleotettix maculatus*. The reported species are divided in 25 categories by chorology and 14 categories by origin. Most numerous according to chorotypes are the Eurosiberian (20 %) followed by the Central and South European (16 %) species as well as according to origin the Siberian (23 %) followed by the Central European (19 %) faunal elements. Endemic taxa of Orthoptera in Vrachanska Planina are 1 genus, 5 species and 1 subspecies, one of which is Bulgarian endemic species and the remaining taxa are Balkan endemics. The northernmost, westernmost, easternmost and southernmost localities in the ranges of 1 genus and 4 species are situated in Vrachanska Planina. The investigated area lies at the northern or eastern range limits of other 3 genera, 2 species and 1 subspecies. *Leptophyes discoidalis* and *Miramella* sp. are among the rarest species of Orthoptera in Bulgaria.

**Key words:** Orthoptera, Western Stara Planina, Bulgaria, new synonym, distribution, zoogeography.

### Introduction

Preparation of the present book affords a good opportunity to summarize the knowledge on Orthoptera of Vrachanska Planina and to add new information. The availability of most of the published specimens in collections allowed revising older records with a view to current concepts on the content and systematic position of the taxa.

**Taxonomic scope.** The main object of this study is the order Orthoptera. Orders, related to Orthoptera, distributed in Vrachanska Planina, are Blattodea, Mantodea and Dermaptera. Of the three orders, only one species of Blattodea is published from the investigated area and there is a record of Mantodea in the newly collected material. This scanty information is also included in the present paper.

**History of exploration.** Vrachanska Planina is well studied with respect to the Orthoptera. This is due to the field studies carried during three periods with considerable distances of time between them.

The beginning is initiated by Nikola Nedelkov who collected insects from the region 110 years ago. He recorded 33 species (Nedelkov 1908), some of them incorrectly identified.

All species are reported from Vratsa but the presence of mountain species among them, such as *Pseudopodisma fieberi* and *Psophus stridulus*, indicates that most were collected in Vrachanska Planina above Vratsa. The prominent orthopterist Boris Uvarov has identified 4 species collected by Finnish entomologists during a one-day excursion above Vratsa (Uvarov 1949). In a review of Orthoptera in Bulgaria, Buresch & Peschev (1955, 1957, 1958) revised the collection of N. Nedelkov correcting some of his identifications and using additional material added four more species: *Roeseliana roeselii*, *Pholidoptera littoralis*, *Pezotettix giornae* and *Aiolopus thalassinus*.

The second crucial landmark in the study of Orthoptera in the explored area, 50 years after N. Nedelkov, was realized by Georgi Peshev. In the frame of expeditions organized by the Institute of Zoology in Western Stara Planina Range, he reported 24 species from Vrachanska Planina (Peschev 1970, Pešev 1974), in most cases without exact indication of the localities.

The present-day period of study of the mountain began other 50 years after the investigations of G. Peshev realized during the last years by the second author. Chobanov (2009a) dealt with some difficult for distinguishing species and corrected some erroneous identifications for seven species in Vrachanska Planina and in his PhD thesis (Chobanov 2009b) he included unpublished specimens from museum collections and revised all published records from which material was preserved. In 2012-2014, he collected new material in Vrachanska Planina from exactly localized places. The following new species and subspecies, most of them valid, were described from Vrachanska Planina respectively by Peshev (1985), Andreeva (1985), Vedenina & Helversen (2009) and Chobanov *et al.* (2014): *Isophya miksici*, *Ephippiger ephippiger balkanicus* (synonymized here), *Chorthippus oschei pusztaensis* and *Tettigonia balcanica*. Revisions of species complexes based on morphological, acoustical, karyological and molecular investigations defined more precisely species and their systematic position in the genera *Isophya* (Grzywacz & Warchałowska-Śliwa 2008, Warchałowska-Śliwa *et al.* 2008, Grzywacz-Gibała *et al.* 2010, Grzywacz *et al.* 2011, Chobanov *et al.* 2013) and *Psorodonotus* (Kaya *et al.* 2015). Scanty information on occurrence of single species in the area of investigation was reported by Pešev (1959), Peschev (1971) and Berger *et al.* (2010). The only species of orders related to Orthoptera from Vrachanska Planina was reported by Drenski (1939). It is an incorrectly identified representative of Blattodea. So far, information on Orthoptera and Blattodea in Vrachanska Planina (the adjacent closely located areas including) was published in 22 papers.

### Material and methods

The information on the species distribution is based on the entire literature for Vrachanska Planina and on original data. The original data consist of verification of all published specimens preserved in museum collections, identification of most unpublished specimens from the investigated area and of material collected by the second author. The collection of the National Museum of Natural History in Sofia from Vrachanska Planina comprises the samples of Nikola Nedelkov and Georgi Peshev. A certain part of the specimens collected by the latter author were not published and identified. This refers mainly to common and widely distributed species. All other specimens of Orthoptera, collected before the 1950s, identified and reported in the review of Bulgarian species by Buresch & Peschev (1955, 1957, 1958) are also kept in the same collection. All these

materials comprise incorrectly identified specimens which are revised and a considerable part of them is identified for the first time. The specimens from Vrachanska Planina kept in the collections of the Faculty of Biology of St. Kliment Ohridski University of Sofia, the Natural History Department of the Regional History Museum in Blagoevgrad and the private collection of the second author are also identified or revised. The published material comprises specimens preserved in the Zoological Museum of the University of Helsinki and the private collections of Varvara Vedenina (Moscow) and Dirk Berger (Dresden).

Published records from the investigated area are critically treated, the respective specimens are checked and in certain cases the identifications are corrected. With regard to this, taxonomic changes for some species are mentioned. Attention is paid to endemic and subendemic taxa and to the position of Vrachanska Planina according to the range limits of some species.

The range of each species is presented concisely by the chorotype to which it belongs. The chorotypes in the scheme of Popov (2007) are used. They are modified for some species and some new categories are created considering the current knowledge on the species distribution. For polytypic species, the chorotype is presented separately for species and subspecies. This information is used in an analysis of the chorology of the taxa only on species level. A similar analysis is made also for the origin of the species according to their centres of dispersion after Popov (2007). The concrete categories in this respect however are not mentioned in the text for each species and are used only for a general conclusion. Distribution in Bulgaria is also given in summarized form with indication of the vertical scope of occurrence in the whole country.

**Study area.** Vrachanska Planina is located in Western Stara Planina Range. It borders with Koznitsa, Golema Planina and Rzhana mountains and Gola Glava Hill. Its border with the Danubian Plain is clearly outlined between the steep slopes and the lowland. The borders of Vrachanska Planina follow the roads around the mountain along the line Vratsa – the main road southwest of Nefela – the same road southwest of Beli Izvor – road fork near the northernmost point of the mountain – road fork to Glavatsi – road fork to Cherkaski – Stoyanovo – road fork to Dolno Ozirovo – road fork to Varshets – Dolna Bela Rechka – Gorna Bela Rechka – Milanovo – the main road along the Iskar Gorge – Opletnya – Eliseina – Zverino – Cherepish – Lyutibrod – Chelopek – Pavolche – Vratsa.

Enlisting the localities of a species, we include also those in the neighbourhood of Vrachanska Planina but they are given separately from the other localities. Localities at the border are Lakatnik Railway Station and Troposhansko place near Vratsa. Beyond the borders of the mountain, only localities at a distance up to 5 km are included: Varshets, Zanozhene, Druzhevo, Rebarkovo, Mezdra and along Dabnik River. The farther situated localities, such as Zanoge in Ponor Mts. and Todorini Kukli Peak and Klisura Monastery in Koznitsa Mts. are not included in the area of investigation. When a certain species is found only out of the mountain borders, the respective text about it is presented with smaller font size. Records of some species collected in Iskar Gorge are commented. *Tetrix bolivari* Saulcy, 1901, specimens from which are labelled and published from Iskar Gorge without exact locality and were not found somewhere else into Vrachanska Planina, is not included in the present paper.

Species published under “Stara Planina” by Nedelkov (1908) are not taken into consideration because they do not concern only Vrachanska Planina above Vratsa but also Svoje and other parts of the mountain that are not located in the explored area. Many

species mentioned by Peschev (1970) for “Western Stara Planina” in general, which were collected in its entire territory, including Vrachanska Planina, are also excluded from the present study.

**Abbreviations.** The abbreviations used in this paper are:

coll. – collection of

DCh – Dragan Chobanov

GP – Georgi Peshev

leg. – collected by

NMNH – National Museum of Natural History, Sofia

NN – Nikola Nedelkov

obs. – observed

SU – St. Kliment Ohridski University of Sofia

### List of species

## ORTHOPTERA

### TETTIGONIOIDEA

#### TETTIGONIIDAE

#### TETTIGONIINAE

#### Decticini

#### ***Decticus verrucivorus verrucivorus* (Linnaeus, 1758)**

Near Parshevitsa Chalet, GN08, N 43°09', E 23°28', 1325-1470 m, mesophytic clearings with excessive pasture and isolated overgrown areas, 18.9.2012, adults; N 43°08', E 23°28', 1450 m, stony area at the rocky cliff overgrown with grass, 18.9.2012, adults, both DCh obs. Between Vratsa and Parshevitsa Chalet, GN08, N 43°10', E 23°29', 1000-1100 m, mesophytic clearing on carbonate stony substrate, 13.7.2014, adults, DCh obs. Beyond the borders of Vrachanska Planina but very close to it, this species is found near Varshets, FN88, 15.7.2000, 1 ♀, leg. Dimov, coll. SU.

Both the species and the nominate subspecies are taxa with Palearctic chorotype. This is a common species in lowlands and mountains in Bulgaria up to 1800 m altitude.

#### Platycleidini

#### ***Platycleis grisea* (Fabricius, 1781)**

Near Parshevitsa Chalet, GN08, N 43°08', E 23°28', 1450 m, stony area at the rocky cliff overgrown with grass, 18.9.2012, adults, DCh obs. Between Okolchitsa place and Vola place, GN08, N 43°11', E 23°33', 970 m, ruderal stony pasture, 19.9.2012, adults, DCh obs. Above Vratsa, GN08, 980 m, 15.9.1964, 1 ♀, leg. GP, coll. NMNH. Close to Vrachanska Planina but beyond its borders, this species is found near Varshets, FN88, 29.6.2000, 1 ♀, leg. Georgiev, coll. SU. An incompletely labelled specimen is collected in Iskar Gorge, 18.8.1966, 1 ♀, leg. GP, coll. NMNH. In the lower part of the gorge where the border of Vrachanska Planina runs, there are suitable habitats for *Platycleis grisea* and the abovementioned female was presumably found in the part of Iskar Gorge adjacent to Vrachanska Planina.

On the basis of bioacoustic investigations, Heller (1988) downgrades the status of *Platypleis grisea* to a subspecies of *Platypleis albopunctata* (Goeze, 1778). According to morphological characteristics, it is restored again as a distinct species by Massa & Fontana (2011).

*Platypleis grisea* is a Southeastern European species. It is common throughout Bulgaria up to 1500 m a.s.l.

***Tessellana veyseli* Koçak, 1984**

*Platypleis vittata* Charp.: Nedelkov 1908: 433.

*Tessellana vittata* Charp.: Buresch & Peschev 1958: 51.

*Platypleis (Tessellana) veyseli* Koçak, 1984: Chobanov 2009a: 14, Fig. 8.

Vratsa (Nedelkov 1908); 1 ♀, leg. NN, coll. NMNH (Buresch & Peschev 1958); GN08, 19.8.1907, 1 ♀, leg. NN, coll. NMNH (Chobanov 2009a).

*Tessellana* was regarded until recently as a subgenus belonging to *Platypleis*. In their new systematics of tribe Platycleidini, Massa & Fontana (2011) considered it as a distinct genus.

This is a European–Western Asiatic species. It occurs in the lower plains and kettles of Bulgaria except its southeastern corner.

***Broughtonia cf. domogledi* Brunner von Wattenwyl, 1882**

*Platypleis domogledi* Brunn. W.: Nedelkov 1908: 433.

*Bicolorana arnoldi* Buresch & Peschev 1958: 54 (nec Ramme, 1933).

*Bicolorana* n. sp.: Peschev 1970: 196.

*Metrioptera domogledi* (Br.): Pešev 1974: 74.

Parshevitsa Chalet, 1300 m, 14-15.9.1964, 2 ♂♂, 5 ♀♀ (Peschev 1970); GN08, 1200 m, 14.9.1964, 1 ♀, 1400 m, 15.9.1964, 1 ♀, both leg. GP, coll. NMNH. Near Parshevitsa Chalet, GN08, N 43°08', E 23°28', 1450 m, stony area at the rocky cliff overgrown with grass, 18.9.2012, adults, DCh obs. Between Vratsa and Parshevitsa Chalet, GN08, N 43°10', E 23°29', 1000-1100 m, mesophytic clearing on carbonate stony substrate, 13.7.2014, adults, DCh obs. Vrachanska Planina, July 1905, 1 ♂, leg. NN (Buresch & Peschev 1958); 1000 m, 17-18.8.1966, 13 ♂♂, 13 ♀♀ (Peschev 1970); 960-1400 m, 6.8.1957, 14-15.9.1964, 17.8.1966, 11 ♂♂, 20 ♀♀ (Pešev 1974); 1100 m, 17.8.1966, 3 ♂♂, 2 ♀♀, 1300 m, 18.8.1966, 3 ♂♂, 2 ♀♀, both leg. GP, coll. NMNH. Vratsa (Nedelkov 1908); 6.8.1957, 1 ♂, 4 ♀♀, 15.9.1964, 2 ♂♂, 2 ♀♀ (Peschev 1970); GN08, July, 1 ♂, leg. NN, coll. NMNH; 6.8.1957, 1 ♂, leg. GP, coll. NMNH.

A closely related species, *Metrioptera arnoldi* Ramme, 1933, is described from Pirin Mts. Heller (1988) synonymized it with *Metrioptera domogledi* but after other authors it is a subspecies of *Metrioptera domogledi*. For these two species, Harz (1969) described the new subgenus *Broughtonia* belonging to *Metrioptera*. In the new systematics of tribe Platycleidini, Massa & Fontana (2011) considered *Broughtonia* (with the same two species) as a distinct genus. In the same time, however, the latter authors consider three closely related species, *Metrioptera tsirojanni* Harz & Pfau, 1983, *Vichetia oblongicollis* (Brunner von Wattenwyl, 1882) and *Vichetia knippereri* (Ramme, 1951), in other two genera. On the other hand, *Vichetia helleri* (Schmidt, 1998), closely related to *Bicolorana bicolor* (Philippi, 1830), is placed in *Vichetia*, too. Therefore, the generic status of these taxa and the whole group formerly considered within *Metrioptera* (e.g., Harz 1969, Heller 1988) needs revision. The specimens from Vrachanska Planina are similar to *Broughtonia arnoldi* as well as

to *Broughtonia domogledi*. Their species belonging can be clarified definitely only after bioacoustic investigation of their songs.

This species (under this taxonomic interpretation) belongs to the Carpathian-Northern Balkan chorotype. Under the same interpretation, *Broughtonia domogledi* has restricted distribution: in Bulgaria only in Western Stara Planina Range up to 1400 m altitude and beyond its border in the neighbouring countries in the north and in the west. Vrachanska Planina traces out the northern limit of the range.

### ***Roeseliana roeselii* (Hagenbach, 1822)**

*Roeseliana roeselii* Hgb.: Buresch & Peschev 1958: 55.

*Metriopectera roeselii* (Hgb.): Pešev 1974: 73.

Vratsa, leg. NN, coll. NMNH (Buresch & Peschev 1958); 370 m, 18.6.1958, 7 ♂♂, 3 ♀♀ (Pešev 1974); GN08, 23.6.1964, 2 ♂♂, 2 ♀♀, leg. GP, coll. NMNH. Beyond the borders of Vrachanska Planina but very close to it, this species is found near Varshets, FN88, 29.6.2000, 1 ♀, leg. Petkova, 15.7.2000, 1 ♀, leg. Velichkova, both coll. SU.

As in the case of *Broughtonia domogledi*, taxonomic changes during last years were applied also to this taxon. Though Harz (1969) considered six distinct species within the genus *Roeseliana* in Europe, Götz (1969) treated all formerly described South European and Western Asian taxa relative to *Metriopectera roeselii* [*M. fedtschenkoi* (Saussure, 1874), *M. pylnovi* Uvarov, 1924, *M. vasilii* Götz, 1969, *M. ambitiosa* Uvarov, 1924, *M. minor* (Nadig, 1961), *M. azami* (Finot, 1892), *M. brunneri* (Ramme, 1951)] as a single species, *Metriopectera fedtschenkoi*, and pointed to hybridization with *Metriopectera roeselii* in the bordering area of both species ranges. Heller (1988) included all mentioned taxa into a single species, *Metriopectera roeselii*. Later on, Heller *et al.* (1998) doubted the unification of these taxa under one species stating that “while the South European forms formerly included in *Metriopectera fedtschenkoi* clearly belong to *Metriopectera roeselii*, this may not be true for all of the South East European and especially the Caucasian and Central Asian forms.” Massa and Fontana (2011) have made a controversial attempt to revise the Palaearctic Platycleidini (the groups related to *Platycleis* and *Metriopectera*) and reestablished the genus *Roeseliana* with seven species. However, they omitted some of the taxa described in this group, which combined with the different understanding of the internal taxonomy of “*Roeseliana*” by different authors resulted in some additional questions like the position of *Roeseliana fedtschenkoi minor* described under *Roeseliana azami*. Chobanov (2011) considered the Bulgarian populations of the group belonging to *Metriopectera roeselii roeselii* in the mountains and *Metriopectera roeselii fedtschenkoi* in the lowlands with transitional forms occurring between these two taxa. Thus, until the situation is resolved and refraining from making a temporary decision, herewith we use the name *Roeseliana roeselii* in a broad sense.

Accepting this interpretation, *Roeseliana roeselii* is a Holarctic species. By the same interpretation, it is distributed in Bulgaria in wetlands up to 1200 m a.s.l.

### ***Psorodonotus fieberi* (Fieber, 1853)**

*Psorodonotus fieberi* (Frivaldszky in Fieber, 1853): Kaya, Chobanov, Skejo, Heller & Çıplak 2015: Fig. 2A(1), Fig. 10, Appendix 1, Appendix 2.

Parshevitsa Chalet, GN08, N 43°08', E 23°28', 1350-1450 m, 18.9.2012, 1 ♂, leg. DCh, coll. DCh (Kaya *et al.* 2015); the same data, mesophytic clearings with excessive pasture and isolated overgrown areas, DCh obs.

Until recently, the populations of the genus *Psorodonotus* in the Balkan Peninsula

(the only ones in Europe) was considered belonging to three subspecies of *Psorodonotus fieberi*. The new investigations of Kaya *et al.* (2015) proved definitely on the basis of morphological (qualitative and quantitative), acoustic and molecular data that the three taxa are distinct species.

This is a Balkan endemic species with an Eastern Balkan chorotype. It is a common species which occurs only in the higher parts of the mountains usually between 1400 and 2200 m altitude. Vrachanska Planina traces out the northern limit of the range of *Psorodonotus fieberi*.

***Pachytrachis gracilis* (Brunner von Wattenwyl, 1861)**

*Pachytrachelus frater* Nedelkov 1908: 431 (nec Brunner von Wattenwyl, 1882).

*Pachytrachelus gracilis* Brunn. W.: Nedelkov 1908: 431.

*Pachytrachis frater* Buresch & Peschev 1958: 67 (nec Brunner von Wattenwyl, 1882).

*Pachytrachis gracilis* Br. W.: Buresch & Peschev 1958: 67; Chobanov 2009a: 23.

Near Parshevitsa Chalet, GN08, N 43°08', E 23°28', 1450 m, stony area at the rocky cliff overgrown with grass, 18.9.2012, adults, DCh obs. Between Eliseina and Parshevitsa Chalet, GN07, N 43°07', E 23°30', 700 m, mesomorphic riparian habitat, 20.9.2012, adults, DCh obs. Between Okolchitsa place and Vola place, GN08, N 43°10', E 23°34', 1055 m, mesophytic wood clearings, 19.9.2012, adults, DCh obs. Above Vratsa, GN08, 1300 m, 6.8.1957, 5 ♂♂, 1 ♀, 1 female last instar nymph, leg. GP, coll. NMNH. Vratsa (Nedelkov 1908); July (Buresch & Peschev 1958); July, 1 female last instar nymph, leg. NN (Chobanov 2009a); GN08, the same data, det. NN as *Poecilimon thessalicus* Brunn., coll. NMNH. Close to Vrachanska Planina but beyond its borders, this species is found near Varshets, FN88, 16.7.2000, 1 ♂, coll. SU.

A part of the published material from Vratsa was identified as *Pachytrachelus* (or *Pachytrachis*) *frater* (Brunner von Wattenwyl, 1882); the rest, as *Pachytrachelus* (or *Pachytrachis*) *gracilis* by Nedelkov (1908) and Buresch & Peschev (1958). Checking all the specimens identified and published as *Pachytrachis frater*, Chobanov (2009a) proved that this species does not occur in Bulgaria and is distributed in the northwestern coastal parts of the Balkan Peninsula.

*Pachytrachis gracilis* is Central and South European species. It is common in Bulgaria in the lowland and hilly belt as well as in the foothills of mountains up to 1500 m a.s.l.

***Rhacocleis germanica* (Herrich-Schäffer, 1840)**

*Rhacocleis germanica* Herr.-Schäff.: Nedelkov 1908: 431; Buresch & Peschev 1958: 45.

Vratsa (Nedelkov, 1908); August, 1 ♀, leg. NN, coll. NMNH (Buresch & Peschev 1958). Zverino, GN07, N 43°05', E 23°33', 500 m, ruderal stony habitat with young trees of *Carpinus*, 19.9.2012, adults, DCh obs.

This is a Central and South European species. *Rhacocleis germanica* is common in lowlands and lower parts of the mountains up to 1200 m altitude, mainly in South Bulgaria.

**Pholidopterini**

***Pholidoptera griseoptera* (De Geer, 1773)**

Above Vratsa, GN08, 860 m, 15.9.1964, 1 ♂, leg. GP, coll. NMNH. Vratsa, GN08, 6.8.1957, 1 ♂, leg. GP, coll. NMNH.

*Pholidoptera griseoptera* is a European species distributed also in Northern Anatolia. It is not very common in the lowlands and mountains throughout Bulgaria up to 1600 m

a.s.l.

***Pholidoptera fallax* (Fischer, 1853)**

*Olynthoscelis fallax* Fisch. Fr.: Nedelkov 1908: 431.

*Pholidoptera fallax* Fisch.: Uvarov 1949: 91; Buresch & Peschev 1958: 59.

Near Parshevitsa Chalet, GN08, N 43°08', E 23°28', 1450 m, stony area at the rocky cliff overgrown with grass, 18.9.2012, adults, DCh obs. Between Eliseina and Parshevitsa Chalet, GN07, N 43°08', E 23°30', 1345 m, stony slope surrounded by mesoxerophytic herbaceous vegetation above a forest of *Fagus sylvatica* and below the rocky cliff, 20.9.2012, adults; N 43°07', E 23°30', 700 m, mesomorphic riparian habitat, 20.9.2012, adults, both DCh obs. Between Vratsa and Parshevitsa Chalet, GN08, N 43°10', E 23°29', 1000-1100 m, mesophytic clearing on carbonate stony substrate, 13.7.2014, adults, DCh obs. Between Okolchitsa place and Vola place, GN08, N 43°10', E 23°34', 1055 m, mesophytic wood clearings, 19.9.2012, adults, DCh obs. Above Vratsa, GN08, 980 m, 15.9.1964, 4 ♂♂, 2 ♀♀, 1300 m, 6.8.1957, 1 ♀, both leg. GP, coll. NMNH. Vrachanska Planina, 1100 m, 17.8.1966, 6 ♀♀, 1300 m, 18.8.1966, 1 ♂, 4 ♀♀, both leg. GP, coll. NMNH. Vratsa (Nedelkov 1908); 14.8.[1939], 1 specimen, [leg. Harald Lindberg, Håkan Lindberg, P. Lindberg, coll. Zoological Museum of the University of Helsinki] (Uvarov 1949; Buresch & Peschev 1958 as Vrachanska Planina, 14.8.1949 [instead of 1939]); GN08, 6.8.1957, 2 ♂♂, 8 ♀♀, leg. GP, coll. NMNH. Beyond the borders of Vrachanska Planina but very close to it, this species is found near Varshets, FN88, 16.7.2000, 1 ♂, leg. Petrova, coll. SU.

This is a Central and South European species, widely distributed in Bulgaria up to 1700 m altitude excepting the hottest southwestern parts of the country.

***Pholidoptera aptera karnyi* Ebner, 1908**

*Pholidoptera aptera* (F.): Peschev 1970: 175-177.

The ridge of Vrachanska Planina (Peschev 1970).

*Pholidoptera aptera* (Fabricius, 1793) is Central and South European species. Two subspecies of it and transitional forms between them occur in Bulgaria. *Pholidoptera aptera karnyi* is a mountain Balkan endemic subspecies with Northern and Central Balkan chorotype inhabiting Stara Planina, Ruy Mt. and Vitoshka Mts. between 800 and 2200 m a.s.l. Vrachanska Planina traces out the northern limit of the range of the subspecies.

***Pholidoptera frivaldskyi* (Herman, 1871)**

*Olynthoscelis frivaldskyi* Herm.: Nedelkov 1908: 431.

*Pholidoptera frivaldskyi* Herm.: Buresch & Peschev 1958: 64.

*Pholidoptera frivaldskyi* (Fieber [sic!]): Pešev 1974: 72.

Parshevitsa Chalet, GN08, 1400 m, 15.9.1964, 2 ♂♂, leg. GP, coll. NMNH. Near Parshevitsa Chalet, GN08, N 43°09', E 23°28', 1325-1470 m, mesophytic clearings with excessive pasture and isolated overgrown areas, 18.9.2012, adults, DCh obs. Vrachanska Planina, 1300 m, 18.8.1966, 6 ♂♂, leg. GP, coll. NMNH. Above Vratsa, 16.7.1905, 1 ♂, leg. NN, coll. NMNH (Buresch & Peschev 1958). Vratsa (Nedelkov 1908); 375 m, 28.6.1964 (Pešev 1974); GN08, 23.6.1964, 7 ♂♂, 3 ♀♀, leg. GP, coll. NMNH. At the border of Vrachanska Planina, this species is found in Troposhansko place between Bistrets and Beli Izvor, southwest of Nefela, along Leva River, GN09, [N 43°14'30", E 23°29'30"], 8.8.1906, 1 ♀, leg. NN, coll. NMNH. Close to Vrachanska Planina but beyond its borders, it is collected near Varshets, FN88, 19.6.1958, 1 ♂, 22.6.1964, 2 ♀♀, both leg. GP, coll. NMNH, 29.6.2000,



1 ♀, leg. Petkova, coll. SU.

*Pholidoptera frivaldskyi* is a Southeastern European species occurring in mountains. It is known from Stara Planina Range, the mountains of Southwestern Bulgaria and Sakar Mts. between 300 and 2200 m altitude. Vratsa is one of the lowest localities in Bulgaria.

***Pholidoptera littoralis* (Fieber, 1853)**

*Pholidoptera littoralis* [sic] Fieb.: Buresch & Peschev 1958: 65; Peschev 1970: 197.

*Pholidoptera littoralis* [sic!] (Fieber, 1953 [sic!]): Pešev 1971: 208; Pešev 1974: 72.

Vratsa, 23.6.1964, 2 ♂♂ (Peschev 1970; Pešev 1971); 23.6.1961 (Pešev 1974); GN08, 23.6.1964, 3 ♀♀, leg. GP, coll. NMNH. In the lowland, in the close proximity of the mountain, *Pholidoptera littoralis* is found along Dabnik River near Vratsa (published as Vratsa, Buresch & Peschev 1958), GN09, 15.8.1949, 1 ♀, leg. S. Minkova, coll. NMNH.

Three subspecies of this species are known. According to Harz (1969), *Pholidoptera littoralis similis* (Brunner von Wattenwyl, 1861) occurs in Bulgaria (Vidin, Stara Planina Range, Rila Mts.). Harz wrote however that he has not investigated the three subspecies and think that only after such study it will be clarified whether the populations in Bulgaria belong to the nominate subspecies or to *Pholidoptera littoralis similis*, to which subspecies he had placed them (Harz 1969). After Eades *et al.* (2015) the nominate form *Pholidoptera littoralis littoralis* is distributed in Bulgaria. Because of the minor differences between the subspecies and lack of comparative material from different parts of the species range, we refrain from determining the subspecies affiliation of the population from Vrachanska Planina.

Treated only as species, *Pholidoptera littoralis* has a South European chorotype. Its distribution in Bulgaria is limited only in Northwestern Bulgaria where it occurs in the western part of the Danubian Plain as well as in Western Stara Planina Range up to 1600 m a.s.l. Contrary to the opinion of Harz (1969) after Nedelkov (1908), the species does not occur in Rila Mts.

***Eupholidoptera schmidti* (Fieber, 1861)**

Vratsa place above Zgorigrad, GN08, N 43°12', E 23°30', 860 m, trees and grass vegetation on rocky terrain, 18.9.2012, adults, DCh obs.

Until recently, *Eupholidoptera schmidti* was considered as a subspecies of *Eupholidoptera chabrieri* (Charpentier, 1825) but according to a molecular analysis of a group of closely related taxa it is treated as distinct species (Allegrucci *et al.* 2014).

*Eupholidoptera schmidti* is a Balkan subendemic species, which range is extended to the northeastern part of Italy. According to chorotype, it is a Transadriatic species. In Bulgaria, the occurrence of this species is restricted to the west of the line Pleven – Ribaritsa – Konyavska Planina Mts. – Blagoevgrad – Mesta Valley and in vertical direction – up to 1200 m altitude. Vrachanska Planina traces out the northern limit of its range.

**T e t t i g o n i i n i**

***Tettigonia viridissima* (Linnaeus, 1758)**

Between Vratsa and Parshevitsa Chalet, GN08, N 43°10', E 23°29', 1000-1100 m, mesophytic clearing on carbonate stony substrate, 13.7.2014, adults, DCh obs. Vratsa, GN08, 6.7.1906, 1 ♂, leg. NN, 6.8.1957, 2 ♂♂, 1 ♀, leg. GP, both coll. NMNH.

This is a Palearctic species. It is common in Bulgaria and occurs in lowlands as well as in mountains up to 2000 m a.s.l.

***Tettigonia balcanica* Chobanov & Lemonnier-Darcemont, 2014**

*Tettigonia cantans* Pešev 1974: 71 (nec Füssly, 1775).

*Tettigonia balcanica* Chobanov & Lemonnier-Darcemont 2014 [sp. n.]: Chobanov, Lemonnier-Darcemont, Darcemont, Puskás & Heller 2014: 96, fig. 7.

Vrachanska Planina, above 1000 m, 6.8.1957 (Pešev 1974). Above Vratsa, GN08, 1300 m, 6.8.1957, 11 ♂♂, 1 ♀, coll. NMNH, 2 ♂♂, 1 ♀, coll. Historical Museum Blagoevgrad, both leg. GP (Chobanov *et al.* 2014). All checked specimens (13 ♂♂ and 2 ♀♀) are designated as paratypes.

The species of the genus *Tettigonia*, occurring on the Balkan Peninsula only in the mountains, was found to be an undescribed species. Its populations have been well known during more than a century but have been treated incorrect as belonging to *Tettigonia cantans* (Füssly, 1775), a Eurosiberian species.

*Tettigonia balcanica* is an endemic taxon for the central part of the Balkan Peninsula known from Southern Croatia, Southeastern Bosnia and Herzegovina, Montenegro, Albania, Northwestern Greece, Macedonia, Southern Serbia and Bulgaria eastwards to Eastern Stara Planina Range. It belongs to Northern and Central Balkan chorotype. In Bulgaria, this species occurs between 700 and 1800 m altitude in Stara Planina Range, Vitosha Mts., Rila Mts., Pirin Mts. and Western Rhodopes (Chobanov *et al.* 2014). Vrachanska Planina traces out the northern limit of its range.

SAGINAE

**S a g i n i**

***Saga pedo* (Pallas, 1771)**

*Saga natoliae* Peschev 1970: 197 (nec Serville, 1839); Pešev 1974: 75 (nec Serville, 1839).

Between Vratsa and Parshevitsa Chalet, GN08, N 43°10', E 23°29', 1000-1100 m, mesophytic clearing on carbonate stony substrate, 13.7.2014, 1 nymph, DCh obs. Near Cherepish, 18.8.1966, 1 ♀ (Peschev 1970; Pešev 1974). Cherepish Monastery, GN17, 800 m, 8-9.10.1996, 1 ♀, leg. M. Langourov.

The female published by Peschev as *Saga natoliae* is not found in coll. NMNH. Notwithstanding the significant morphological differences between *Saga natoliae* and *Saga pedo*, we consider this specimen belonging to *Saga pedo* because the latter was collected later in the same locality. *Saga natoliae* is a strictly stationary Pontomediterranean faunal element and such species usually do not occur in the Iskar Gorge.

*Saga pedo* is a European–Western Asiatic species by chorotype. It is one of the few typical steppe species in Bulgaria and occurs in the eastern part of the Danubian Plain and in Dobrudzha, along Stara Planina Range and in several isolated relict localities in Pirin Mts. and Slavyanka Mts. up to 1700 m a.s.l. Its range in Bulgaria has decreased considerably during the last century and in the Danubian Plain it is almost extinct. In contrast to all other species of *Saga*, a peculiarity of this species is the obligatory parthenogenetic development and the absence of males.

BRADYPORINAE

**E p h i p p i g e r i n i**

***Ephippiger ephippiger ephippiger* (Fiebig, 1784)**

*Ephippiger ephippiger balkanicus* Andreeva, **syn. n.**: Andreeva 1985: 19, fig. 5 (6) [subsp. n.].

Parshevitsa, 1200 m, 14.9.1964, 7 ♂♂ paratypes (Andreeva 1985); Parshevitsa

Chalet, GN08, 1200 m, 14.9.1964, 1 ♂ paratype, leg. GP, det. E. Andreeva as *Ephippiger ephippiger balkanicus*, coll. Historical Museum Blagoevgrad. Near Parshevitsa Chalet, GN08, N 43°09', E 23°28', 1325-1470 m, mesophytic clearings with excessive pasture and isolated overgrown areas, 18.9.2012, adults, DCh obs. Between Vratsa and Parshevitsa Chalet, GN08, N 43°10', E 23°29', 1000-1100 m, mesophytic clearing on carbonate stony substrate, 13.7.2014, nymphs, DCh obs. Between Okolchitsa place and Vola place, GN08, N 43°10', E 23°34', 1055 m, mesophytic wood clearings, 19.9.2012, adults; N 43°11', E 23°33', 970 m, ruderal stony pasture, 19.9.2012, adults, both DCh obs. Vratsa, GN08, 6.7.1906, 1 ♀, leg. NN, 18.7.1950, 2 ♀♀, leg. S. Minkova, 6.8.1957, 1 ♂, leg. GP, all coll. NMNH. At the border of Vrachanska Planina, this species is found in Troposhansko place between Bistrets and Beli Izvor, southwest of Nefela, along Leva River, GN09, [N 43°14'30", E 23°29'30"], 8.8.1906, 1 ♂, leg. NN, coll. NMNH. Close to Vrachanska Planina but beyond its borders, it is collected near Varshets, FN88, 14.7.2000, 1 ♂, leg. Tsvetanov, coll. SU.

According to Andreeva (1985), 7 ♂♂ paratypes of *Ephippiger ephippiger balkanicus* from Parshevitsa were preserved in the Natural History Department of the Regional History Museum in Blagoevgrad. Now, only one male paratype from this locality exists in the same collection. After revision of the type material of *Ephippiger ephippiger balkanicus* (the paratype from Parshevitsa, the holotype from Belogradchik and other paratypes) and additional material from Northwestern Bulgaria (the range of subsp. *balkanicus*), we did not find stable morphological differences in titillators, epiproct and cerci between this population and the ones from South Bulgaria treated by Andreeva (1985) as *Ephippiger ephippiger ephippiger*. The shape and size of titillators vary widely in one and the same population. Thus, *Ephippiger ephippiger ephippiger* (Fiebig, 1784) (= *Ephippiger ephippiger balkanicus* Andreeva, 1985, **syn. n.**).

Both the species and the nominate subspecies are Central and South European taxa. *Ephippiger ephippiger ephippiger* is a common subspecies in Bulgaria up to 2000 m altitude except for lowlands in its southeastern part.

## CONOCEPHALINAE

### C o p i p h o r i n i

#### ***Ruspolia nitidula* (Scopoli, 1786)**

*Conocephalus nitidulus* Scop.: Nedelkov 1908: 428.

*Homorocoryphus nitidulus* Scop.: Buresch & Peschev 1958: 40-41.

Vratsa, leg. S. Statkov (Nedelkov 1908; Buresch & Peschev 1958); GN08, July, 1 ♂, leg. NN, coll. NMNH. Beyond the borders of Vrachanska Planina but very close to it, this species is found near Varshets, FN88, 12-17.7.2000, 3 ♂♂, 1 male last instar nymph, coll. SU.

*Ruspolia nitidula* belongs to the Afrotropical–Palearctic chorotype. It occurs in moist habitats in lowlands and kettles of Bulgaria up to 600 m a.s.l.

### C o n o c e p h a l i n i

#### ***Conocephalus (Conocephalus) hastatus hastatus* (Charpentier, 1825)**

*Xyphidium hastatum* Charp.: Nedelkov 1908: 429.

*Conocephalus hastatus* Charp.: Buresch & Peschev 1958: 40.

Above Gorno Ozirovo, FN98, N 43°14', E 23°24', 370 m, xeromesophytic meadows with shrubs and groves of *Carpinus orientalis*, 17.9.2012, adults, DCh obs. Opletnya, GN07, 500-600 m, groves of *Carpinus orientalis*, 20.9.2012, adults, DCh obs. Vratsa (Nedelkov

1908); July 1907, 1 ♂, 1 ♀, leg. NN (Buresch & Peschev 1958); GN08, July, 1 ♂, leg. NN, coll. NMNH. An incompletely labelled specimen is collected in Iskar Gorge, 18.8.1966, 1 ♂, leg. GP, coll. NMNH. Suitable habitats for this species exists in the lower part of the gorge where the border of Vrachanska Planina runs and the abovementioned male was presumably found in the part of Iskar Gorge adjacent to Vrachanska Planina.

The nominate subspecies is a Balkan subendemic taxon. Its range covers the eastern part of the Balkan Peninsula and extends beyond its borders only in the adjacent parts of South Romania. Therefore, the subspecies is Eastern Balkan by chorotype. *Conocephalus hastatus* as species belongs to Eastern Mediterranean chorotype. It inhabits the lowlands and rarely occurs in the lower parts of the mountains up to 800 m altitude in North and Southeastern Bulgaria.

## MECONEMATINAE

### M e c o n e m a t i n i

#### ***Meconema thalassinum* (De Geer, 1773)**

*Meconema thalassina* [sic!] De Geer: Uvarov 1949: 92.

*Meconema thalassinum* De Geer: Buresch & Peschev 1958: 37.

Vratsa, 14.8.[1939], 1 specimen, [leg. Harald Lindberg, Håkan Lindberg, P. Lindberg, coll. Zoological Museum of the University of Helsinki] (Uvarov 1949); Vrachanska Planina, the same data (Buresch & Peschev 1958).

*Meconema thalassinum* is a European species. It is common in lowland and mountain deciduous forests up to 1500 m a.s.l. in Bulgaria inhabiting the canopy of trees.

## PHANEROPTERIDAE

### PHANEROPTERINAE

### P h a n e r o p t e r i n i

#### ***Phaneroptera (Phaneroptera) nana* Fieber, 1853**

*Phaneroptera quadripunctata* Br. W.: Pešev 1974: 69.

Between Eliseina and Parshevitsa Chalet, GN07, N 43°06', E 23°30', 500 m, mesomorphic riparian habitat, 20.9.2012, adults, DCh obs. Vratsa, 6.8.1958 (Pešev 1974); GN08, 6.8.1957, 1 ♂, 1 ♀, leg. GP, coll. NMNH. An incompletely labelled specimen is collected in Iskar Gorge, 18.8.1966 (Pešev 1974); 1 ♂ with the same data, leg. GP, coll. NMNH. In the lower part of the gorge where the border of Vrachanska Planina runs, there are suitable habitats for *Phaneroptera nana* and the abovementioned male was presumably found in the part of Iskar Gorge adjacent to Vrachanska Planina.

This is a Holomediterranean species. It inhabits trees and shrubs in the lowlands and at the feet of the mountains in Bulgaria up to 900 m altitude.

#### ***Phaneroptera (Phaneroptera) falcata* (Poda, 1761)**

*Phaneroptera falcata* Scop. [sic!]: Nedelkov 1908: 428.

*Phaneroptera falcata* Poda: Buresch & Peschev 1958: 9-10.

Vratsa, GN08, August, leg. S. Statkov (Nedelkov 1908); 1 ♀, coll. NMNH (Buresch & Peschev 1958).

Eurosiberian species. It is rare in isolated localities in Stara Planina Range, Western Sredna Gora Mts., Osogovo Mts., Maleshevska Planina Mts., Belasitsa Mts. and Strandzha Mts. up to 1600 m a.s.l.

**Tylopsidini*****Tylopsis lilifolia* (Fabricius, 1793)**

*Tylopsis thymifolia* Petagna: Nedelkov 1908: 428.

*Tylopsis lilifolia* Fabr.: Buresch & Peschev 1958: 11.

Between Eliseina and Parshevitsa Chalet, GN07, N 43°06', E 23°30', 500 m, mesomorphic riparian habitat, 20.9.2012, adults, DCh obs. Zverino, GN07, N 43°05', E 23°33', 500 m, ruderal stony habitat with young trees of *Carpinus*, 19.9.2012, adults, DCh obs. Vratsa (Nedelkov 1908); July to August (Buresch & Peschev 1958); GN08, 6.8.1957, 4 ♂♂, 3 ♀♀, 1 female last instar nymph, leg. GP, coll. NMNH. Close to Vrachanska Planina but beyond its borders, this species is found near Varshets, FN88, 12.7.2000, 1 ♂, 1 ♀, leg. Hristova and Stoyanov, coll. SU. An incompletely labelled specimen is collected in Iskar Gorge, 18.8.1966, 1 ♀, leg. GP, coll. NMNH. Such common and widely distributed in Bulgaria species as *Tylopsis lilifolia* undoubtedly occurs also in the part of Iskar Gorge adjacent to Vrachanska Planina.

Holomediterranean species. It is common on shrubs and in herbaceous habitats in lowlands and lower slopes of the mountains in Bulgaria up to 1000 m altitude.

**Barbitistini*****Leptophyes albovittata* (Kollar, 1833)**

*Leptophyes albovittata* Koll.: Nedelkov 1908: 428; Uvarov 1949: 92; Buresch & Peschev 1958: 12; Pešev 1974: 69.

Above Vratsa, 1200 m, 16.6.1964 and 15.9.1964 (Pešev 1974); GN08, 860 m, 15.9.1964, 3 ♂♂, 1 ♀, leg. GP, coll. NMNH. Vratsa (Nedelkov 1908); July to August (Buresch & Peschev 1958); 14.8.[1939], 3 specimens, [leg. Harald Lindberg, Håkan Lindberg, P. Lindberg, coll. Zoological Museum of the University of Helsinki] (Uvarov 1949); GN08, 16.6.1958, 1 ♂, 2 female last instar nymphs, leg. GP, coll. NMNH. At the border of Vrachanska Planina, this species is found in Lakatnik Railway Station, FN97, 20.7.1998, 1 ♀, leg. D. Chobanov, and in Troposhansko place between Bistrets and Beli Izvor, southwest of Nefela, along Leva River, GN09, [N 43°14'30", E 23°29'30"], 8.8.1906, 4 ♂♂, 1 ♀, leg. NN, both coll. NMNH.

European species. It is common in lowlands and lower parts of the mountains throughout Bulgaria up to 1000 m a.s.l.

***Leptophyes discoidalis* (Frivaldszky, 1867)**

*Leptophyes discoidalis* Friv.: Pešev 1959: 153.

Vratsata place along Varteshnitsa River, on *Sambucus nigra* L., 16.6.1958, 3 ♂♂, leg. GP (Pešev 1959); GN08, 17.6.1958, 1 ♀, leg. GP, coll. NMNH. Between Okolchitsa place and Vola place, GN08, N 43°10', E 23°34', 1055 m, mesophytic wood clearings, 19.9.2012, 1 ♂, leg. DCh.

*Leptophyes discoidalis* is a Carpathian–Northern Balkan species. It is among the rare species of Orthoptera in Bulgaria. Distributed only in Northwestern Bulgaria, it is known from two other localities in this country: Berkovitsa and Pleven area. The abovementioned localities in Vrachanska Planina are the southernmost ones in the range.

***Isophya rectipennis* Brunner von Wattenwyl, 1878**

*Isophya* [sic!] *pyrenaea* Nedelkov 1908: 426 (nec Serville, 1838).

*Isophya rectipennis* Brunner von Wattenwyl, 1878: Chobanov 2009a: 20; Chobanov, Grzywacz, Iorgu, Ciplak, Ilieva & Warchałowska-Śliwa 2013: 61, Fig. 191.

Vratsa (Nedelkov 1908; Chobanov 2009a); GN08, N 43°11', E 23°33', 23.6.1964, 1 ♂, leg. GP, coll. NMNH (Chobanov *et al.* 2013).

Nedelkov reported with uncertainty his material as belonging to *Isophya pyrenaica* and considered *Isophya camptoxypha* Fieb. as its synonym. Buresch & Peschev (1958) treated also with doubt the correctness of the identification of Nedelkov without excluding entirely the occurrence of *Isophya pyrenaica* in Bulgaria. Now, it is already known that *Isophya pyrenaica* and *Isophya camptoxypha* are distinct species, the former not distributed on the Balkan Peninsula and the latter not distributed in the eastern part of the Peninsula (Chobanov *et al.* 2013).

*Isophya rectipennis* is a Balkan subendemic species which range covers beyond the Balkan Peninsula only Northwestern Anatolia. A Pontian species by chorotype. This species is widely distributed in Bulgaria except in the southwestern regions, occurring mostly in the lowland and hilly belt up to 1200 m altitude.

### ***Isophya miksici* Peshev, 1985**

*Isophya* [sic!] *modesta* Nedelkov 1908: 426 (nec Frivaldszky, 1867).

*Isophya* [sic!] *modestior* Nedelkov 1908: 426 (part.) (nec Brunner von Wattenwyl, 1882).

*Isophya* n.sp.: Peschev 1970: 195-196.

*Isophya modestior* Pešev 1974: 69 (nec Brunner von Wattenwyl, 1882).

*Isophya miksici* Peshev 1985: 15 (sp.n.).

*Isophya miksici* Peshev, 1985: Grzywacz & Warchałowska-Śliwa 2008: 154; Warchałowska-Śliwa, Chobanov, Grzywacz & Maryańska-Nadachowska 2008: 230; Grzywacz-Gibała, Chobanov & Warchałowska-Śliwa 2010: 28; Grzywacz, Maryańska-Nadachowska, Chobanov, Karamysheva & Warchałowska-Śliwa 2011: 511; Chobanov, Grzywacz, Iorgu, Ciplak, Ilieva & Warchałowska-Śliwa 2013: 26-27, 40, 66, Fig. 114, 151, 156, 192.

Gorski Dom Vacation House, GN08, N 43°10', E 23°29', 1150-1200 m, lush mesophyte meadow, 24.6.2006, adults and nymphs in large numbers observed, 22 ♂♂, 7 ♀♀, 4 male and 4 female last instar nymphs, leg. DCh, coll. DCh (Chobanov *et al.* 2013); the same data, 2 specimens (Grzywacz & Warchałowska-Śliwa 2008, as near Parshevitsa Chalet); 1000-1200 m, 4 ♂♂, 1 ♀ (Warchałowska-Śliwa *et al.* 2008, as near Parshevitsa Chalet); the same data, N 43°10', E 23°29' (Grzywacz-Gibała *et al.* 2010, as Vrachanska Planina; Grzywacz *et al.* 2011, as West Stara Planina). Between Vratsa and Parshevitsa Chalet, GN08, N 43°10', E 23°29', 1000-1100 m, mesophytic clearing on carbonate stony substrate, 13.7.2014, adults, DCh obs. Vrachanska Planina, N 43°10', E 23°29', up to 1200 m, in meadows on the slopes, 16-18.6.1958, 46 ♂♂, 29 ♀♀ [part.] (Peschev 1970; Chobanov *et al.* 2013); N 43°11', E 23°30', 840 m, 24.6.1964, 3 ♂♂; N 43°08', E 23°27', 1300 m, 18.8.1966, 2 ♀♀, both leg. GP, coll. NMNH (Chobanov *et al.* 2013). Above Vratsa, GN08, N 43°11', E 23°31', 600 m, 6.8.1957, 2 ♀♀ paratypes, leg. GP (Pešev 1974, as Vratsa; Peshev 1985); the same date (labelled Vratsa), 1 ♂, 2 ♀♀, leg. GP, coll. NMNH (Chobanov *et al.* 2013); 1100 m, 16-17.6.1958, 14 ♂♂, 13 ♀♀ paratypes, leg. GP (Peshev 1985); 16.6.1958, 1 ♂, 17.6.1958 (17.8.1958), 3 ♂♂, 6 male and 10 female last instar nymphs (labelled Vratsa), both leg. GP, coll. NMNH; N 43°10', E 23°29', 1100 m, 23.6.1964, 3 ♂♂, 2 ♀♀ paratypes, leg. GP (Peshev 1985); 5 ♂♂, 5 ♀♀, leg. GP, coll. NMNH (Chobanov *et al.* 2013). Vratsa, the lowland and neighbouring slopes, N 43°11', E 23°33' (Nedelkov 1908; Chobanov *et al.* 2013); in meadows in the lowland, 16-18.6.1958, 46 ♂♂, 29 ♀♀ [part.] (Peschev 1970); July, 1 ♂, 2 ♀♀, leg. NN, det. NN as *Isophya modestior*, 6.7.1906, 1 ♂, leg. NN; 18.6.1958, 3 ♂♂, 2 ♀♀, leg. GP, all coll. NMNH (Chobanov *et al.* 2013). Gorski Dom Vacation House is situated in Varovititsa place 2 km north of Parshevitsa Chalet and 4 km southwest of Zgorigrad. Beyond the borders

of Vrachanska Planina but very close to it, this species is found near Zanozhene (suburb of Varshets), FN88, N 43°10', E 23°14', up to 700 m, in meadows, 20.6.1958, 4 ♂♂, 7 ♀♀ (Peshev 1970; Pešev 1974; both as Varshets); 20.6.1958, 5 ♂♂, 8 ♀♀; 22.6.1964, 4 ♂♂, 3 ♀♀, both leg. GP, coll. NMNH (Chobanov *et al.* 2013). Buresch & Peshev (1958) consider as dubiously the record of *Isophya modesta* in Vratsa and Vrachanska Planina by Nedelkov.

*Isophya miksici* is an endemic species which occurs only in Western Stara Planina Range up to 1600 m a.s.l. and the adjacent parts of the Western Danubian Plain with a range reaching Iskar River. Hence, it belongs to the Western Stara Planina chorotype. To the east of Iskar River, it is replaced with *Isophya plevnensis* Peshev, 1985, a vicariant closely related endemic species with a range in the central part of the Danubian Plain and Central Stara Planina Range. The southernmost localities in the range of *Isophya miksici* are the ones in Vrachanska Planina, Zanozhene and above Berkovitsa.

### ***Isophya cf. plevnensis* Peshev, 1985**

*Isophya cf. plevnensis* Peshev, 1985: Chobanov, Grzywacz, Iorgu, Cıplak, Ilieva & Warchałowska-Śliwa 2013: 66, Fig. 192.

Levishte Railway Station, GN07, N 43°05', E 23°28', 14.7.2009, 1 ♂, 1 ♀, leg. D. Pilarska, coll. DCh (Chobanov *et al.* 2013).

This locality of *Isophya plevnensis* in Iskar Gorge is situated very close to the range of *Isophya miksici*. The exact border between the populations of the two species is not clear, and the question whether both occur sympatrically and produce hybrids stays.

*Isophya plevnensis* is another endemic species known from the Central Danubian Plain between Iskar and Yantra rivers as well as from Central Stara Planina Range up to 1200 m altitude and the eastern part of Western Stara Planina. It belongs to the Central Danubian–Central Predbalkan chorotype. Levishte is the westernmost locality in the range of *Isophya plevnensis*. It is situated 51 km far from Etropole, the closest locality of the species.

### ***Isophya modestior* Brunner von Wattenwyl, 1882**

*Isophya* [sic!] *modestior* Nedelkov 1908: 426 (part.).

*Isophya modestior* Brunner von Wattenwyl, 1882: Chobanov, Grzywacz, Iorgu, Cıplak, Ilieva & Warchałowska-Śliwa 2013: 72, Fig. 194.

Vratsa (Nedelkov 1908); GN08, N 43°11', E 23°33', June, 1 ♂, leg. NN, coll. NMNH (Chobanov *et al.* 2013). Close to Vrachanska Planina but beyond its borders, this species is found near Varshets, FN88, N 43°10', E 23°14', 20.6.1958 (Pešev 1974); 20.6.1958, 27 ♂♂, 16 ♀♀; 22.6.1964, 4 ♂♂, 2 ♀♀, both leg. GP; 1.7.2000, 1 ♂, leg. P. Angelova; July 2000, 1 ♂, leg. N. Slavov, all. coll. NMNH (Chobanov *et al.* 2013).

A Central and South European species. This species is distributed only in Western Bulgaria in mountains and their foothills between 500 and 1800 m a.s.l. in the south to Osogovo Mts. and Vitosha Mts. Vrachanska Planina traces out the northern limit of the range of *Isophya modestior*.

### ***Isophya speciosa* (Frivaldszky, 1867)**

*Isophya speciosa* (Frivaldszky, 1865): Chobanov, Grzywacz, Iorgu, Cıplak, Ilieva & Warchałowska-Śliwa 2013: 75, Fig. 195.

Vrachanska Planina, N 43°11', E 23°29', 1000 m, 24.6.1964, 7 ♂♂, 2 ♀♀, leg. GP, coll. NMNH (Chobanov *et al.* 2013). Vratsa, GN08, N 43°11', E 23°33', the vineyards, 12.6.1949,

1 ♂, coll. NMNH; 6.8.1957, 1 ♀; 17.6.1958, 4 ♂♂, both leg. GP, coll. NMNH (Chobanov *et al.* 2013).

*Isophya speciosa* is a Balkan subendemic species which range covers beyond the Balkan Peninsula only South Romania and Northwestern Anatolia. According to its chorotype, it is an Eastern Mediterranean species. This species is very common and widely distributed in Bulgaria up to 2200 m altitude except its southwesternmost corner.

***Ancistrura nigrovittata* (Brunner von Wattenwyl, 1878)**

*Barbitistes serricaudus* [sic!] Nedelkov 1908: 426 (nec Fabricius, 1794); Buresch & Peschev 1958: 25 (nec Fabricius, 1794).

*Ancistrura nigrovittata* (Brunner von Wattenwyl, 1878): Chobanov 2009a: 21.

Vratsa, July, 1 abnormal ♂ (Nedelkov 1908; Buresch & Peschev 1958); GN08, July, 1 ♂, leg. NN, det. NN as *Barbitistes serricauda* [sic!], coll. NMNH (Chobanov 2009a).

Nedelkov (1908) reported the only specimen known from this area as *Barbitistes serricaudus* but wrote that the species cannot be identified correctly. He considered the specimen abnormal in respect to the male genitalia. This is due to the incorrect identification of the genus because at that time the genus *Ancistrura* has not been described yet (Chobanov 2009a). Buresch & Peschev (1958) also have doubts about the occurrence of *Barbitistes serricauda* in Bulgaria (Vratsa) putting a question mark before the name of this species.

Eastern Balkan species. It inhabits shrubs in South Bulgaria (usually up to 1200 m a.s.l.) without its southeastern part. Vratsa is the only locality in North Bulgaria. If we accept the opinion of Iorgu *et al.* (2008) that *Ancistrura nigrovittata* is possibly extinct in Romania (Dobrogea), Vratsa is the northernmost locality in the range of the species. The species and the monotypic genus *Ancistrura* are Balkan endemic taxa distributed only in northeastern part of the Balkan Peninsula.

***Poecilimon (Poecilimon) thoracicus* (Fieber, 1853)**

*Poecilimon thoracicus* Fieb.: Nedelkov 1908: 425.

Near Parshevitsa Chalet, GN08, N 43°08', E 23°28', 1450 m, stony area at the rocky cliff overgrown with grass, 18.9.2012, adults, DCh obs. Between Vratsa and Parshevitsa Chalet, GN08, N 43°10', E 23°29', 1000-1100 m, mesophytic clearing on carbonate stony substrate, 13.7.2014, adults, DCh obs. Above Cherepish Monastery, GN17 (Nedelkov 1908). Vratsa (Nedelkov 1908); GN08, 6.8.1957, 1 ♂, 1 ♀, leg. GP, coll. NMNH. At the border of Vrachanska Planina, this species is found in Lakatnik Railway Station, FN97, 7.7.1948, 1 ♂, 2 ♀♀, leg. P. Drenski, coll. NMNH. In the close proximity of the mountain, *Poecilimon thoracicus* is collected along Dabnik River near Vratsa, GN09, 15.8.1949, 1 ♂, coll. NMNH. Close to Vrachanska Planina but beyond its borders, it is found near Varshets, FN88, 19.6.1958, 1 ♀, leg. GP, coll. NMNH.

*Poecilimon thoracicus* is a Balkan subendemic species, which range is extended to parts of South Romania. It is most likely a Southern Carpathian–Northern and Central Balkan species by chorotype. This very common species is widely distributed in Bulgaria up to 2500 m altitude.

***Poecilimon (Poecilimon) fussii* Brunner von Wattenwyl, 1878**

Between Vratsa and Parshevitsa Chalet, GN08, N 43°10', E 23°29', 1000-1100 m, mesophytic clearing on carbonate stony substrate, 13.7.2014, adults, DCh obs. Vrachanska Planina, 1100 m, 17.8.1966, 2 ♂♂; 1300 m, 18.8.1966, 1 ♂, 1 ♀, both leg. GP and det. GP



as *Poecilimon elegans* Br. W.; coll. NMNH. Vratsa, GN08, 6.7.1906, 1 ♂, 1 ♀, leg. NN, det. GP as *Poecilimon elegans* Br. W.; June, 1 ♂, 1 ♀, leg. NN, det. NN as *Poecilimon thoracicus* Fieb.; 1 ♂, leg. NN, det. NN as *Poecilimon fussi* [sic!] Brunn.; 6.8.1957, 1 ♀ and 23.6.1964, 1 ♂, both leg. GP and det. GP as *Poecilimon elegans* Br. W.; all coll. NMNH. Beyond the borders of Vrachanska Planina but very close to it, this species is found near Varshets, FN88, 20.6.1958, 1 ♂, leg. GP, coll. NMNH.

*Poecilimon fussi* is a Central and South European species. It occurs in the lowlands and mountains (up to 1500 m a.s.l.) of North Bulgaria excepting its eastern part and in South Bulgaria its range reaches in the south to Osogovo Mts., Rila Mts. and Sredna Gora Range.

***Polysarcus denticauda* (Charpentier, 1825)**

Between Vratsa and Parshevitsa Chalet, GN08, N 43°10', E 23°29', 1000-1100 m, mesophytic clearing on carbonate stony substrate, 13.7.2014, adults, DCh obs. Vratsa, GN08, 17.6.1958, 4 ♂♂, leg. GP, coll. NMNH.

Central and South European species. In Bulgaria, this is a mountain species, which is common also in the highest parts of the country but rarely occurs in isolated localities in lowlands and kettles as well. It is not found in Southeastern Bulgaria.

**G R Y L L O I D E A**

**GRYLLIDAE**

GRYLLINAE

**G r y l l i n i**

***Gryllus (Gryllus) campestris* Linnaeus, 1758**

Near Ledenika Cave, GN08, 1.5.1963, 1 male last instar nymph, leg. D. Marinova, coll. NMNH. Near Parshevitsa Chalet, GN08, N 43°09', E 23°28', 1325-1470 m, mesophytic clearings with excessive pasture and isolated overgrown areas, 18.9.2012, nymphs of penultimate instar, DCh obs. Parshevitsa Chalet, GN08, 1200 m, 14.9.1964, 1 nymph, leg. GP, coll. NMNH. Between Okolchitsa place and Vola place, GN08, N 43°11', E 23°33', 970 m, ruderal stony pasture, 19.9.2012, nymphs of penultimate instar, DCh obs. Above Vratsa, GN08, 980 m, 15.9.1964, 2 nymphs, leg. GP, coll. NMNH. Vratsa, GN08, 17.6.1958, 1 ♀, leg. GP, coll. NMNH. This species is found 2.5 km beyond the borders of Vrachanska Planina near Druzhevo, FN97, N 43°08', E 23°21', 1050 m, xeromesophytic stony meadows with partly ruderalised vegetation, 16.9.2012, 1 nymph, DCh obs.

*Gryllus campestris* is a Western Palearctic species. This most common species of Grylloidea in Bulgaria is distributed in whole country up to 2200 m a.s.l.

***Melanogryllus desertus* (Pallas, 1771)**

Vratsa, GN08, 23.6.1964, 1 ♂, 1 ♀, leg. GP, coll. NMNH. Close to Vrachanska Planina but beyond its borders, it is collected near Mezdra, GN18, 16.6.1906, 1 ♀, leg. NN, coll. NMNH.

*Melanogryllus desertus* is a Western Palearctic species. It is distributed in lowlands and foothills of the mountains in Bulgaria up to 1000 m altitude (usually up to 600 m).

**Modicogryllini**

***Modicogryllus (Modicogryllus) truncatus (Tarbinsky, 1940)***

Vratsa, GN08, 23.6.1964, 4 ♂♂, 1 ♀, leg. GP, coll. NMNH.

The species is reported quite recently for the first time for Bulgaria (Popov 2007). Almost all records of *Modicogryllus* in Bulgaria, referred in the past to *Mogicogryllus frontalis*, belong in fact to *Modicogryllus truncatus* (Chobanov 2011).

*Modicogryllus truncatus* is a Southeastern European–Western Asian species. It occurs in the lowland and hilly parts of Bulgaria up to 400 m a.s.l.

***Modicogryllus (Modicogryllus) frontalis (Fieber, 1844)***

This species is not recorded in Vrachanska Planina but is found only 5 km outside its border in Koznitsa Mts. near Zanozhene (suburb of Varshets), FN88, 22.6.1964, 1 ♀, leg. GP, coll. NMNH.

In the past, it is considered as a common species in Bulgaria but the checking of all collected specimens proved that they belong almost entirely to *Modicogryllus truncatus*. As a result of this revision of material of *Modicogryllus* in Bulgarian collections, *Modicogryllus frontalis* was found to be one of the rarest species of Orthoptera in Bulgaria.

A Eurosiberian species. In Bulgaria, it is known only from abovementioned locality and Berkovitsa. These two localities trace out the southern limit of the range of *Modicogryllus frontalis*.

NEMOBIINAE

**Pteronemobiini**

***Pteronemobius (Pteronemobius) heydenii heydenii (Fischer, 1853)***

Vratsa, GN08, 18.6.1958, 2 ♂♂, 13 ♀♀, leg. GP, coll. NMNH. Beyond the borders of Vrachanska Planina but very close to it, this species is found near Varshets, FN88, 19.6.1958, 1 ♂, 2 ♀♀; 25.5.1966, 4 ♀♀, both leg. GP, coll. NMNH. Two incompletely labelled specimens are collected in Iskar Gorge, 26.5.1966, 2 ♀♀, leg. GP, coll. NMNH. In the lower part of the gorge where the border of Vrachanska Planina runs, there are suitable moist habitats for *Pteronemobius heydenii heydenii* and the abovementioned females were presumably found in the part of Iskar Gorge adjacent to Vrachanska Planina.

*Pteronemobius heydenii heydenii* belongs to the Central and South European chorotype and *Pteronemobius heydenii* as a species is Palearctic–Palaearctic. In Bulgaria, this species occurs in lowlands and foothills of the mountains up to 650 m altitude.

**TRIDACTYLOIDEA**

**TRIDACTYLIDAE**

**TRIDACTYLINAE**

***Xya pfaendleri (Harz, 1970)***

Close to Vrachanska Planina but beyond its borders, this species is found near Varshets, FN88, 19.6.1958, 1 ♂, 6 ♀♀; 25.5.1966, 1 ♂, 5 ♀♀, both leg. GP, coll. NMNH.

Also beyond the borders of Vrachanska Planina, the genus *Xya* is reported by Nedelkov (1908) from the sands along Iskar River near Rebarkovo and Mezdra observed in July. The record is published as *Tridactylus variegatus* (Latr.). The material of Nedelkov is not preserved in coll. NMNH. During the record of Nedelkov (July 1907 according to Buresch & Peschev 1957) *Xya pfaendleri* has not been described and now it is not possible to clarify which of the two species or both have been found by Nedelkov.

Palaearctic–Palearctic species. *Xya pfaendleri* occurs in lowlands and foothills of the mountains up to 500 m a.s.l. mainly in South Bulgaria.

***Xya variegata* Latreille, 1809**

Altogether with the preceding species, this species is found close to Vrachanska Planina but beyond its borders near Varshets, FN88, 19.6.1958, 1 ♂, 1 ♀; 25.5.1966, 1 ♂, both leg. GP, coll. NMNH.

*Tridactylus variegatus* (Latr.) is published by Nedelkov (1908) from the sands along Iskar River near Rebarkovo and Mezdra observed in July. The identification of Nedelkov is not sure (see the preceding species). Nevertheless, the samples of Nedelkov very likely have consisted of both species because in most localities and samples in Bulgaria in which *Xya variegata* has been recorded, the more common *Xya pfaendleri* also occurs. So far however, the genus *Xya* and both species are not proved as occurring in Vrachanska Planina but suitable habitats for them exists along Iskar River above Rebarkovo.

Paleotropical–Palearctic species. *Xya variegata* occurs in lowlands and foothills of the mountains up to 600 m a.s.l. mainly in South Bulgaria but is more rare than the preceding species.

**T E T R I G O I D E A**

**TETRIGIDAE**

TETRIGINAE

**T e t r i g i n i**

***Tetrix bipunctata* (Linnaeus, 1758)**

*Tetrix bipunctata* (L.): Nedelkov 1908: 416 (part.); Buresch & Peschev 1955: 14.

Above Gorna Bela Rechka, FN98, N 43°11', E 23°23', 950 m, 17.9.2012, adults, DCh obs. Vratsa (Nedelkov 1908); GN08, June, 1 specimen, leg. NN, coll. NMNH (Buresch & Peschev 1955).

According to Nedelkov (1908) *Tetrix bipunctata* inhabits mountains and occurs rarely in lowlands. The specimen from Vratsa checked by Buresch & Peschev (1955) was not found in coll. NMNH. Therefore, the identification arouses certain doubt and confusion with *Tetrix tenuicornis* is possible. The new record above Gorna Bela Rechka verifies the occurrence of *Tetrix bipunctata* in Vrachanska Planina.

Palearctic species. In Bulgaria, it occurs in the mountains and their foothills from 700 to 1800 m altitude.

***Tetrix tenuicornis* (Sahlberg, 1893)**

*Tetrix bipunctata* Lin.: Nedelkov 1908: 416 (part.) (nec Linnaeus, 1758).

Vratsa, GN08 (Nedelkov 1908). Beyond the borders of Vrachanska Planina but very close to it, this species is found near Varshets, FN88, 900 m, 25.6.1966 [sic!] (Pešev 1974, as *Tetrix nutans nutans* Hag.), 22.6.1964, 1 ♂, 2 ♀♀; 25.5.1966, 6 ♂♂, 21 ♀♀, 1 male and 4 female last instar nymphs, both leg. GP, coll. NMNH. Three incompletely labelled specimens are collected in Iskar Gorge, 26.5.1966, 3 ♂♂, leg. GP, coll. NMNH. It is possible that these specimens were found in the lower part of the gorge adjacent to Vrachanska Planina.

Palearctic species. *Tetrix tenuicornis* is widely distributed in Bulgaria up to 1400 m a.s.l.

***Tetrix subulata* (Linnaeus, 1758)**

Vratsa, GN08, 18.6.1958, 1 ♀, leg. GP, coll. NMNH. Close to Vrachanska Planina but beyond its borders, it is found near Varshets, 25.5.1966 (Pešev 1974, identified incorrectly as *Tetrix bolivari* Saulcy), FN88, 19.6.1958, 1 ♂, 1 ♀; 22.6.1964, 1 ♂; 25.5.1966, 4 ♂♂, 3 ♀♀, all leg. GP, coll. NMNH.

Holarctic species. In Bulgaria, it occurs mainly in mountains up to 2000 m altitude and more rarely in lowlands.

***Tetrix tuerki* (Krauss, 1876)**

This species is not recorded in Vrachanska Planina but is found nearby beyond its border in Varshets on the bank of Botunya River, 800 m, 25.5.1966 (Pešev 1974), FN88, 19.6.1958, 7 ♂♂, 3 ♀♀, leg. GP, coll. NMNH; 25.5.1966, 12 ♂♂, 1 ♀, coll. NMNH, 1 ♂, coll. Historical Museum Blagoevgrad, both leg. GP.

Central and South European species. A rare and fragmentarily distributed species in lowlands and foothills of the mountains up to 800 m a.s.l.

***Tetrix depressa* Brisout de Barneville, 1848**

Vratsa, GN08, 17.6.1958, 2 ♀♀, leg. GP, coll. NMNH. At the border of Vrachanska Planina, this species is found in Lakatnik Railway Station, FN97, 28.9.1954, leg. I. Buresch (Buresch & Peshev 1955); 28.10.1934, 1 ♀, leg. I. Buresch, coll. NMNH.

Turanian–Mediterranean species. In Bulgaria, this common species inhabits lowlands and mountains up to 1700 m altitude.

**ACRIDOIDEA**

**ACRIDIDAE**

**CALLIPTAMINAE**

**Calliptamini**

***Calliptamus italicus* (Linnaeus, 1758)**

Near Parshevitsa Chalet, GN08, N 43°08', E 23°28', 1450 m, stony area at the rocky cliff overgrown with grass, 18.9.2012, adults, DCh obs. Between Okolchitsa place and Vola place, GN08, N 43°11', E 23°33', 970 m, ruderal stony pasture, 19.9.2012, adults, DCh obs. Zverino, GN07, N 43°05', E 23°33', 500 m, ruderal stony habitat with young trees of *Carpinus*, 19.9.2012, adults, DCh obs. At a distance of only 2.5 km beyond the borders of Vrachanska Planina, this species is found near Varshets, FN88, 1 ♀, coll. NMNH, and near Druzhevo, FN97, N 43°08', E 23°21', 1050 m, xeromesophytic stony meadows with partly ruderalised vegetation, 16.9.2012, adults, DCh obs.

Turanian–Mediterranean species. *Calliptamus italicus* is very common in Bulgaria up to 2000 m a.s.l. It often develops in mass and is a significant pest in lowlands.

***Paracaloptenus caloptenoides caloptenoides* (Brunner von Wattenwyl, 1861)**

Between Eliseina and Parshevitsa Chalet, GN07, N 43°08', E 23°30', 1345 m, stony slope surrounded by mesoxerophytic herbaceous vegetation above a forest of *Fagus sylvatica* and below the rocky cliff, 20.9.2012, adults, DCh obs.

*Paracaloptenus caloptenoides* is an Eastern Mediterranean species. *Paracaloptenus caloptenoides caloptenoides* belongs to the Southeastern European chorotype. It occurs in lowlands and mountains up to 2000 m altitude mainly in South Bulgaria.

MELANOPLINAE

**Podismini**

***Miramella* sp.**

Yolkovitsa place near Okolchitsa, GN08, N 43°09', E 23°34', 1045-1066 m, 19.9.2012, adults, leg. G. Hristov.

To date, the only record of *Miramella* in Bulgaria is from the area of Kostenets (Nedelkov 1908) referring to *Podisma alpina* Koll. var. *collina* Brun. W. At that time, it was the only known species of the genus *Miramella* in Europe. Existence of forms with different length of wings and lack of distinguishing characters in females make problematic the species identification.

***Podisma pedestris pedestris* (Linnaeus, 1758)**

*Podisma pedestris* (L.): Nedelkov 1908: 424; Buresch & Peschev 1955: 20.

Vratsa (Nedelkov 1908); Vrachanska Planina, 1 specimen, leg. NN, coll. NMNH (Buresch & Peschev 1955); Vratsa, GN08, 2 ♀♀, leg. NN, coll. NMNH.

Both the species and the nominate subspecies are Eurosiberian taxa. This common mountain species is distributed up to the highest parts of the mountains but rarely occurs at their foothills. Several isolated populations inhabit lowland and hilly areas in Eastern Bulgaria.

***Pseudopodisma fieberi* (Scudder, 1897)**

*Podisma fieberi* Scudd.: Nedelkov 1908: 424.

*Pseudopodisma fieberi* (Scudd.): Buresch & Peschev 1955: 19; Pešev 1974: 77.

*Pseudopodisma* n. sp.: Peschev 1970: 196.

*Pseudopodisma* sp.: Pešev 1974: 77.

Near Parshevitsa Chalet, 1200 m, 14.9.1964, 1 ♀ (Peschev 1970); GN08, 14.9.1964, 1 ♀, leg. GP, coll. NMNH. Between Vratsa and Parshevitsa Chalet, GN08, N 43°10', E 23°29', 1000-1100 m, mesophytic clearing on carbonate stony substrate, 13.7.2014, adults, DCh obs. Vrachanska Planina, 1200 m, 14.9.1964 (Pešev 1974, as *Pseudopodisma* sp.); above 1000 m, 15.9.1964 and 17-18.8.1966 (Pešev 1974, as *Pseudopodisma fieberi*); 1300 m, 18.8.1966, 4 ♂♂; 1100 m, 17.8.1966, 1 ♂, 1 ♀, both leg. GP, coll. NMNH. Vratsa (Nedelkov 1908); Vrachanska Planina, 2 specimens, leg. NN, coll. NMNH (Buresch & Peschev 1955); Vratsa, GN08, June 1909, 2 ♂♂; July 1909, 1 ♂, 2 ♀♀, both leg. NN, coll. NMNH; 6.8.1957, 4 ♂♂, 2 ♀♀; 23.6.1964, 9 ♂♂, 8 ♀♀, both leg. GP, coll. NMNH.

*Pseudopodisma fieberi* is a Southeastern European species. In Bulgaria, it occurs only in the mountains in the western part of the country between Western and Central Stara Planina in the north and Osogovo and Rila mountains in the south, from 1000 to 2000 m a.s.l.

***Odontopodisma decipiens decipiens* Ramme, 1951**

*Podisma schmidti* Fieb.: Nedelkov 1908: 424 (nec Fieber, 1853).

*Odontopodisma decipiens* Ramme, 1951: Buresch & Peschev 1955: 18; Pešev 1974: 77; Chobanov 2009a: 16, 23, Fig. 9.

Vratsa (Nedelkov 1908); 7 specimens, coll. NMNH (Buresch & Peschev 1955); 23.6.1964 (Pešev 1974); GN08, July 1907, 2 ♂♂; 2 ♀♀, leg. NN, 23.6.1964, 1 ♂, 1 ♀, leg. GP, both coll. NMNH (Chobanov 2009a). At the border of Vrachanska Planina, this species is found in Troposhansko place between Bistrets and Beli Izvor, southwest of Nefela, along

Leva River, GN09, [N 43°14'30", E 23°29'30"], 8.8.1906, 1 ♂, leg. NN, coll. NMNH (Chobanov 2009a). Two incompletely labelled specimens are collected in Iskar Gorge, 18.8.1966 (Pešev 1974); the same date, 2 ♀♀, leg. GP, coll. NMNH (Chobanov 2009a). It is possible that these specimens were found in the lower part of the gorge adjacent to Vrachanska Planina.

Both the species and the nominate subspecies are taxa with Central and Southeastern European chorotype. *Odontopodisma decipiens* is distributed in Bulgaria in lowlands and mountains up to 1700 m altitude.

***Odontopodisma montana* Kis, 1962**

Opletnya, GN07, 500-600 m, groves of *Carpinus orientalis*, 20.9.2012, adults, DCh obs.

This species is reported quite recently for the first time for Bulgaria (Chobanov 2009a). It is a rare species in this country.

*Odontopodisma montana* is a Carpathian–Northern Balkan species. In Bulgaria, it is known only from Northwestern Bulgaria (in the east to Central Stara Planina Range), Western Rhodopes and Sakar Mts. up to 2000 m a.s.l.

CATANTOPINAE

**P e z o t e t t i g i n i**

***Pezotettix giornae* (Rossi, 1794)**

*Pezotettix giornae* (Rossi): Buresch & Peschev 1955: 16.

Vratsata place above Zgorigrad, GN08, N 43°12', E 23°30', 860 m, trees and grass vegetation on rocky terrain, 18.9.2012, adults, DCh obs. Toshkova Mogila Peak, GN08, N 43°12', E 23°30', 1000-1130 m, stony habitat with shrubs and herbaceous vegetation, 18.9.2012, adults, DCh obs. Between Okolchitsa place and Vola place, GN08, N 43°11', E 23°33', 970 m, ruderal stony pasture, 19.9.2012, adults, DCh obs. Vratsa, GN08, 15.8.1949, 2 specimens, leg. S. Minkova, coll. NMNH (Buresch & Peschev 1955).

Holomediterranean species. This common species occurs in Bulgaria up to 1500 m altitude (usually up to 1100 m).

ACRIDINAE

**A c r i d i n i**

***Acrida ungarica* (Herbst, 1786)**

Zverino, GN07, N 43°05', E 23°33', 500 m, ruderal stony habitat with young trees of *Carpinus*, 19.9.2012, adults, DCh obs.

*Acrida ungarica* is a Holomediterranean species. In Bulgaria, it is common in the lowlands and in the lowest belt of the mountains (rarely up to 800 m a.s.l.).

OEDIPODINAE

**L o c u s t i n i**

***Psophus stridulus* (Linnaeus, 1758)**

*Psophus stridulus* (L.): Nedelkov 1908: 421; Buresch & Peschev 1955: 75; Pešev 1974: 82.

Between Vratsa and Parshevitsa Chalet, GN08, N 43°10', E 23°29', 1000-1100 m, mesophytic clearing on carbonate stony substrate, 13.7.2014, nymphs of last instar, DCh obs. Vrachanska Planina, July 1903, 1 specimen, coll. NMNH (Buresch & Peschev 1955); 1000-1400 m, 15.9.1964 and 18.8.1966 (Pešev 1974). Vratsa, GN08 (Nedelkov 1908).

*Psophus stridulus* is a Eurosiberian species. It occurs only in mountains from 800

to 2600 m altitude.

### O e d i p o d i n i

#### ***Oedipoda caerulescens caerulescens* (Linnaeus, 1758)**

Above Gorno Ozirovo, FN98, N 43°14', E 23°24', 370 m, xeromesophytic meadows with shrubs and groves of *Carpinus orientalis*, 17.9.2012, adults, DCh obs. Between Okolchitsa place and Vola place, GN08, N 43°11', E 23°33', 970 m, ruderal stony pasture, 19.9.2012, adults, DCh obs. Zverino, GN07, N 43°05', E 23°33', 500 m, ruderal stony habitat with young trees of *Carpinus*, 19.9.2012, adults, DCh obs. At a distance of only 2.5 km beyond the borders of Vrachanska Planina, this species is found near Varshets, FN88, 15.7.2000, 1 ♀, 1 female last instar nymph, coll. SU, and near Druzhevo, FN97, N 43°08', E 23°21', 1050 m, xeromesophytic stony meadows with partly ruderalised vegetation, 16.9.2012, adults, DCh obs. It is published also from Iskar Gorge without exact locality (Buresch & Peschev 1955, as *Oedipoda caerulescens* [sic!]). Such common and widely distributed in Bulgaria species undoubtedly occurs also in the part of Iskar Gorge adjacent to Vrachanska Planina.

Both the species and the nominate subspecies are Palearctic taxa. One of the most common species of Orthoptera distributed throughout Bulgaria up to 2000 m a.s.l.

#### ***Oedipoda germanica* (Latreille, 1804)**

Vratsata place above Zgorigrad, GN08, N 43°12', E 23°30', 860 m, trees and grass vegetation on rocky terrain, 18.9.2012, adults, DCh obs. Toshkova Mogila Peak, GN08, N 43°12', E 23°30', 1000-1130 m, stony habitat with shrubs and herbaceous vegetation, 18.9.2012, adults, DCh obs. Markov Kamak Peak, GN08, N 43°11', E 23°33', 1000 m, stony habitat, 19.9.2012, adults, DCh obs. At a distance of only 2.5 km beyond the borders of Vrachanska Planina, this species is found near Druzhevo, FN97, N 43°08', E 23°21', 1050 m, xeromesophytic stony meadows with partly ruderalised vegetation, 16.9.2012, adults, DCh obs.

*Oedipoda germanica* is a Central and South European species. It occurs in lowlands and mountains in Bulgaria without its northwestern and southeastern corners up to 1900 m altitude. The localities in Vrachanska Planina are the only ones known so far in Northwestern Bulgaria to the west of Iskar River.

### S p h i n g o n o t i n i

#### ***Sphingonotus (Sphingonotus) caerulans caerulans* (Linnaeus, 1767)**

*Sphingonotus caerulans* [sic!] Lin.: Nedelkov 1908: 422.

Vratsa, GN08 (Nedelkov 1908).

Both the species and the nominate subspecies are Western Palearctic taxa. In Bulgaria, *Sphingonotus caerulans caerulans* inhabits lowlands and lower parts of mountain slopes up to 900 m a.s.l. It does not occur along the Black Sea Coast where another subspecies (or form) is distributed.

### A c r o t y l i n i

#### ***Acrotylus insubricus insubricus* (Scopoli, 1786)**

At the border of Vrachanska Planina, this species is found in Lakatnik Railway Station, FN97, 12.7.1933, 1 specimen; 28.10.1934, 1 specimen, both leg. I. Buresch, coll. NMNH (Buresch & Peschev 1955).

Both the species and the nominate subspecies are Paleotropical–Palearctic taxa. A common

species in lowlands and lower parts of the mountains in Bulgaria up to 1300 m altitude.

**E p a c r o m i i n i**

***Aiolopus strepens* (Latreille, 1804)**

*Epacromia strepens* Latr.: Nedelkov 1908: 421.

*Aiolopus strepens* (Latr.): Buresch & Peschev 1955: 67.

Between Okolchitsa place and Vola place, GN08, N 43°10', E 23°34', 1055 m, mesophytic wood clearings, 19.9.2012, adults; N 43°11', E 23°33', 970 m, ruderal stony pasture, 19.9.2012, adults, both DCh obs. Vratsa, GN08 (Nedelkov 1908; Buresch & Peschev 1955).

This species is Holomediterranean. In Bulgaria, it is common in lowlands and mountains up to 1800 m a.s.l.

***Aiolopus thalassinus thalassinus* (Fabricius, 1781)**

*Aiolopus thalassinus* (Fab.): Buresch & Peschev 1955: 67.

Vratsa, GN08, July, 1 specimen, leg. NN, coll. NMNH (Buresch & Peschev 1955).

*Aiolopus thalassinus* is a Palearctic–Palaearctic species. *Aiolopus thalassinus thalassinus* belongs to the Afrotropical–Palaearctic chorotype. In Bulgaria, this species occurs in lowlands, lower plains and kettles of Bulgaria up to 600 m altitude.

GOMPHOCERINAE

**C h r y s o c h r a o n t i n i**

***Chrysochraon dispar dispar* (Germar, [1834])**

Vratsa, GN08, 23.6.1964, 2 ♂♂, leg. GP, coll. NMNH.

Both the species and the nominate subspecies are Eurosiberian taxa. *Chrysochraon dispar* is a rare mountain species in Bulgaria which occurs only in Stara Planina Range, Vitoshka Mts. and Western Rhodopes between 650 and 1500 m a.s.l.

***Euthystira brachyptera brachyptera* (Ocskay, 1826)**

*Euthystira brachyptera brachyptera* (Ocsk. [sic!]): Pešev 1974: 78.

Near Parshevitsa Chalet, GN08, N 43°08', E 23°28', 1450 m, stony area at the rocky cliff overgrown with grass, 18.9.2012, adults, DCh obs. Between Eliseina and Parshevitsa Chalet, GN07, N 43°08', E 23°30', 1345 m, stony slope surrounded by mesoxerophytic herbaceous vegetation above a forest of *Fagus sylvatica* and below the rocky cliff, 20.9.2012, adults, DCh obs. Between Vratsa and Parshevitsa Chalet, GN08, N 43°10', E 23°29', 1000–1100 m, mesophytic clearing on carbonate stony substrate, 13.7.2014, adults, DCh obs. Above Vratsa, GN08, 1050 m, 15.9.1964 (Pešev 1974).

Both the species and the nominate subspecies are Eurosiberian taxa. In Bulgaria, *Euthystira brachyptera* is a common species in the mountains up to 2000 m altitude.

***Euchorthippus declivus* (Brisout de Barneville, 1848)**

*Stenobothrus (Chorthippus) pulvinatus* Nedelkov 1908: 419 (nec Fischer von Waldheim, 1846).

*Euchorthippus pulvinatus* Buresch & Peschev 1955: 65 (nec Fischer von Waldheim, 1846).

Between Eliseina and Parshevitsa Chalet, GN07, N 43°08', E 23°30', 1345 m, stony slope surrounded by mesoxerophytic herbaceous vegetation above a forest of *Fagus sylvatica* and below the rocky cliff, 20.9.2012, adults, DCh obs. Vratsata place above Zgorigrad, GN08, N 43°12', E 23°30', 860 m, trees and grass vegetation on rocky terrain, 18.9.2012, adults, DCh obs. Vratsa (Nedelkov 1908); 15.7.1949, 1 specimen, leg. S. Minkova, coll.



NMNH (Buresch & Peschev 1955); GN08, 15 August, 1 ♀, coll. NMNH. At the border of Vrachanska Planina, this species is found in Lakatnik, FN97, 12.7.1933, 1 specimen, leg. N. Atanasov, coll. NMNH (Buresch & Peschev 1955); the same data, 1 ♀, coll. NMNH; and in Troposhansko place between Bistrets and Beli Izvor, southwest of Nefela, along Leva River, GN09, [N 43°14'30", E 23°29'30"], 8.8.1906, 4 ♀♀, leg. NN, coll. NMNH. At a distance of only 2.5 km beyond the borders of Vrachanska Planina, it is found near Druzhevo, FN97, N 43°08', E 23°21', 1050 m, xeromesophytic stony meadows with partly ruderalised vegetation, 16.9.2012, adults, DCh obs.

Earlier records of *Euchorthippus pulvinatus* (Fischer von Waldheim, 1846) from Vrachanska Planina are based on its supposed synonymy with *Euchorthippus declivus* and actually concern the latter.

A Central and South European species. It is very common in lowlands and foothills of the mountains throughout Bulgaria.

### Arcypterini

#### *Arcyptera (Arcyptera) fusca* (Pallas, 1773)

*Arcyptera fusca* (Pall.): Nedelkov 1908: 420; Buresch & Peschev 1955: 39.

*Arcyptera fusca fusca* (Pall.): Pešev 1974: 78.

Between Vratsa and Parshevitsa Chalet, GN08, N 43°10', E 23°29', 1000-1100 m, mesophytic clearing on carbonate stony substrate, 13.7.2014, adults, DCh obs. Vrachanska Planina, 1 specimen, leg. NN, coll. NMNH (Buresch & Peschev 1955); 1150 m, 6.8.1957 (Pešev 1974). Vratsa, GN08 (Nedelkov 1908); June, 1 ♂, leg. NN, coll. NMNH. At the border of Vrachanska Planina, this species is found in Troposhansko place between Bistrets and Beli Izvor, southwest of Nefela, along Leva River, GN09, [N 43°14'30", E 23°29'30"], 8.8.1906, 2 ♂♂, leg. NN, coll. NMNH.

*Arcyptera fusca* has a Eurosiberian distribution and is common in the high mountains of Bulgaria up to 2000 m a.s.l. Occurrence in the foothills of some mountains down to 400 m is rare.

### Dociostaurini

#### *Dociostaurus (Kazakia) brevicollis* (Eversmann, 1848)

*Stauronotus brevicollis* Eversm.: Nedelkov 1908: 420.

*Dociostaurus brevicollis* (Ev.): Buresch & Peschev 1955: 45.

Cherepish Monastery, GN17 (Nedelkov 1908; Buresch & Peschev 1955). Close to Vrachanska Planina but beyond its borders, this species is found near Mezdra, GN18 (Nedelkov 1908; Buresch & Peschev 1955).

*Dociostaurus brevicollis* is a Southeastern European–Western and Central Asian species, which occurs in Bulgaria in lowlands and mountains up to 2000 m altitude.

### Stenobothrini

#### *Stenobothrus stigmaticus stigmaticus* (Rambur, 1838)

*Stenobothrus stigmaticus* (Ramb.): Pešev 1974: 79.

Near Parshevitsa Chalet, GN08, N 43°09', E 23°28', 1325-1470 m, mesophytic clearings with excessive pasture and isolated overgrown areas, 18.9.2012, adults, DCh obs. Vrachanska Planina, 1400 m (Pešev 1974).

Harz (1975) describes *Stenobothrus stigmaticus faberi* from Central Europe and the Balkan Peninsula, including Bulgaria. According to Clemente *et al.* (1989), it is not possible to distinguish *Stenobothrus stigmaticus stigmaticus* and *Stenobothrus stigmaticus faberi* Harz, 1975. The Greek populations (hence the Bulgarian ones, too) belong after Willemse &

Willemse (2008) to the nominate subspecies. Braun (2009, in Eades *et al.* 2015) points to the fact that possibly all specimens from Central Europe and Balkan Peninsula belong to *Stenobothrus stigmaticus faberi* but its status is apparently unclear and rarely recognized. According to Eades *et al.* (2015), the Balkan Peninsula is inhabited by the nominate subspecies. Until resolving this problem, we consider the population in Vrachanska Planina as belonging to *Stenobothrus stigmaticus stigmaticus*.

Both the species and the nominate subspecies are Central and South European taxa. *Stenobothrus stigmaticus* is a typical mountain species occurring in high mountains and kettles in Western Bulgaria between 600 and 2100 m a.s.l.

***Stenobothrus nigromaculatus nigromaculatus* (Herrich-Schäffer, 1840)**

Near Parshevitsa Chalet, GN08, N 43°09', E 23°28', 1325-1470 m, mesophytic clearings with excessive pasture and isolated overgrown areas, 18.9.2012, adults, DCh obs.

Both the species and the nominate subspecies are Eurosiberian taxa. *Stenobothrus nigromaculatus* is distributed in Bulgaria only in the mountains, except those in Southeastern Bulgaria. It is found in Stara Planina from 500 to 2000 m and in the mountains of South Bulgaria from 900 to 2300 m altitude.

***Stenobothrus lineatus lineatus* (Panzer, 1796)**

*Stenobothrus* (*Stenobothrus*) *lineatus* Panz.: Nedelkov 1908: 418.

*Stenobothrus lineatus* (Panz.): Uvarov 1949: 93; Buresch & Peschev 1955: 49.

Near Parshevitsa Chalet, GN08, N 43°09', E 23°28', 1325-1470 m, mesophytic clearings with excessive pasture and isolated overgrown areas, 18.9.2012, adults, DCh obs. Between Vratsa and Parshevitsa Chalet, GN08, N 43°10', E 23°29', 1000-1100 m, mesophytic clearing on carbonate stony substrate, 13.7.2014, adults, DCh obs. Vratsa, GN08 (Nedelkov 1908); 14.8.[1939], 3 specimens, [leg. Harald Lindberg, Håkan Lindberg, P.Lindberg, coll. Zoological Museum of the University of Helsinki] (Uvarov 1949); Vrachanska Planina, 2 specimens, leg. NN, coll. NMNH (Buresch & Peschev 1955). At the border of Vrachanska Planina, this species is found in Troposhansko place between Bistrets and Beli Izvor, southwest of Nefela, along Leva River, GN09, [N 43°14'30", E 23°29'30"], 8.8.1906, 1 ♂, 2 ♀♀, leg. NN, coll. NMNH. Close to Vrachanska Planina but beyond its borders, it is collected near Varshets, FN88, 13-14.7.2000, 3 ♀♀, coll. SU.

Both the species and the nominate subspecies are Eurosiberian taxa. *Stenobothrus lineatus* occurs from the lowlands of North Bulgaria to 2100 m a.s.l. in the mountains of South Bulgaria. It has not been found in the Thracian Lowland and in Southeastern Bulgaria.

***Stenobothrus rubicundulus* Kruseman & Jeekel, 1967**

*Stenobothrus rubicundulus* Kruseman & Jeekel, 1967: Berger, Chobanov & Mayer 2010: Appendix 1.

Okolchitsa place (as Vrachanski Balkan National Park [now Nature Park] near Botev Memorial, near Chelopek), GN08, N 43°09', E 23°34', 1065 m, 30.6.2002, leg. D. Berger and V. Vedenina, coll. D. Berger, Dresden (Berger *et al.* 2010).

*Stenobothrus rubicundulus* has a Central and South European chorotype. In Bulgaria, it is a mountain species distributed from 200 to 2000 m altitude in Stara Planina Range, Konyavska Planina Mts., Rila Mts., Pirin Mts., Slavyanka Mts. and Western Rhodopes. Occurrence in lowlands is very rare.

***Omocestus (Omocestus) minutus (Brullé, 1832)***

*Stenobothrus (Omocestus) petraeus* Nedelkov 1908: 419 (nec Brisout de Barneville, 1856).

*Omocestus petraeus* Buresch & Peschev 1955: 55 (nec Brisout de Barneville, 1856).

Vratsa, GN08 (Nedelkov 1908; Buresch & Peschev 1955).

We consider the record of Nedelkov (1908) as misidentification because the two species at that time usually have not been distinguished and *Omocestus minutus* is considerably more common and densely distributed in Bulgaria than *Omocestus petraeus*.

This Southeastern European species is common in lowlands and foothills throughout Bulgaria up to 1000 m altitude and very rarely higher.

***Omocestus (Omocestus) haemorrhoidalis haemorrhoidalis (Charpentier, 1825)***

*Omocestus petraeus* Pešev 1974: 80 (nec Brisout de Barneville, 1856).

Near Parshevitsa Chalet, GN08, N 43°09', E 23°28', 1325-1470 m, mesophytic clearings with excessive pasture and isolated overgrown areas, 18.9.2012, adults, DCh obs. Parshevitsa, 14-15.9.1964 (Pešev 1974); Parshevitsa Chalet, GN08, 1200 m, 14.9.1964, 1 ♂, leg. GP, coll. NMNH. Between Okolchitsa place and Vola place, GN08, N 43°11', E 23°33', 970 m, ruderal stony pasture, 19.9.2012, adults, DCh obs.

Due to the lack of preserved material of *Omocestus (Omocestus) petraeus* (Brisout de Barneville, 1856) from Vrachanska Planina, confusion with other species of *Omocestus* is possible. The presence of a male which belongs to *Omocestus haemorrhoidalis* from the samples of Georgi Peshev in coll. NMNH from the same place and date suggests a misidentification.

Both the species and the nominate subspecies are Eurosiberian taxa. *Omocestus haemorrhoidalis* occurs in mountains (except those in Southeastern Bulgaria) and their foothills from 500 to 2300 m a.s.l.

***Omocestus (Omocestus) rufipes (Zetterstedt, 1821)***

*Stenobothrus (Omocestus) rufipes* Zett.: Nedelkov 1908: 418.

Between Okolchitsa place and Vola place, GN08, N 43°11', E 23°33', 970 m, ruderal stony pasture, 19.9.2012, adults, DCh obs. Above Vratsa, GN08, 980 m, 15.9.1964, 1 ♀; 860 m, 15.9.1964, 1 ♀, both leg. GP, coll. NMNH. Vratsa, GN08 (Nedelkov 1908). Beyond the borders of Vrachanska Planina but very close to it, this species is found near Varshets, FN88, 1.8.1996, 1 ♂, leg. S. Georgieva, coll. NMNH; 27.6.2000, 1 ♂; 28.6.2000, 1 ♂; 29.6.2000, 1 ♀; 12.7.2000, 1 ♀; 14.7.2000, 2 ♂♂; 29.7.2000, 1 ♂; all coll. SU.

*Omocestus rufipes* is a Palearctic species. It is very common in Bulgaria up to 2000 m a.s.l. (usually up to 1500 m).

**G o m p h o c e r i n i**

***Myrmeleotettix maculatus maculatus (Thunberg, 1815)***

*Myrmeleotettix maculatus* (Thunb.): Peschev 1970: 175-177.

The ridge of Vrachanska Planina (Peschev 1970).

Both the species and the nominate subspecies are Eurosiberian taxa. *Myrmeleotettix maculatus* is a typical mountain species which inhabits Stara Planina Range, the mountains in Southwestern Bulgaria and Western Rhodopes above 1200 m altitude.

***Gomphocerus sibiricus sibiricus* (Linnaeus, 1767)**

*Gomphocerus sibiricus sibiricus* (L.): Pešev 1974: 80.

Vrachanska Planina, 1200 m, 15.9.1964 (Pešev 1974).

This species is a glacial relict with boreomontane distribution. Both the species and the nominate subspecies are Eurosiberian taxa. *Gomphocerus sibiricus* occurs in Bulgaria only above 1200 m altitude in high mountains.

***Stauroderus scalaris scalaris* (Fischer von Waldheim, 1846)**

*Stauroderus scalaris scalaris* (F. W.): Peschev 1970: 175-177.

Between Vratsa and Parshevitsa Chalet, GN08, N 43°10', E 23°29', 1000-1100 m, mesophytic clearing on carbonate stony substrate, 13.7.2014, adults, DCh obs. The ridge of Vrachanska Planina (Peschev 1970).

Both the species and the nominate subspecies are Eurosiberian taxa. *Stauroderus scalaris* occurs in Stara Planina Range, the mountains in Southwestern Bulgaria, Western Rhodopes and their foothills usually above 1000 and up to 2500 m a.s.l.

***Pseudochorthippus parallelus parallelus* (Zetterstedt, 1821)**

*Stenobothrus (Chorthippus) parallelus* Zett.: Nedelkov 1908: 420.

*Chorthippus longicornis* (Latr.): Buresch & Peschev 1955: 62.

*Chorthippus vagans* Peschev 1970: 196-197 (nec Eversmann, 1848); Pešev 1971: 220 (nec Eversmann, 1848); Pešev 1974: 80 (nec Eversmann, 1848).

*Chorthippus montanus* Pešev 1974: 81 (nec Charpentier, 1825).

*Chorthippus parallelus* (Zetterstedt, 1821): Chobanov 2009a: 24-25.

Near Parshevitsa Chalet, GN08, N 43°09', E 23°28', 1325-1470 m, mesophytic clearings with excessive pasture and isolated overgrown areas, 18.9.2012, adults, DCh obs. Parshevitsa Chalet, 1200 m, 14.9.1964, 1 ♂ (Peschev 1970; Pešev 1971); the same data, 1 ♀ (Pešev 1974); GN08, 14.9.1964, 1 macropterous female, leg. GP, det. GP as *Chorthippus vagans* (Charp. [sic!]), coll. NMNH. Between Vratsa and Parshevitsa Chalet, GN08, N 43°10', E 23°29', 1000-1100 m, mesophytic clearing on carbonate stony substrate, 13.7.2014, adults, DCh obs. Toshkova Mogila Peak, GN08, N 43°12', E 23°30', 1000-1130 m, stony habitat with shrubs and herbaceous vegetation, 18.9.2012, adults, DCh obs. Vrachanska Planina, 1400 m, 18.8.1966 (Pešev 1974); 1300 m, 18.8.1966, 1 ♂, leg. GP, det. GP as *Chorthippus montanus* (Charp.), coll. NMNH (Chobanov 2009a). Vratsa, GN08 (Nedelkov 1908); Vratsa area, 1 specimen, leg. NN, coll. NMNH (Buresch & Peschev 1955). At the border of Vrachanska Planina, this species is found in Troposhansko place between Bistrets and Beli Izvor, southwest of Nefela, along Leva River, GN09, [N 43°14'30", E 23°29'30"], 8.8.1906, 1 ♀, leg. NN, coll. NMNH. Beyond the borders of Vrachanska Planina but very close to it, it is found near Zanozhene (suburb of Varshets), FN88, 22.6.1964, 1 ♂, leg. GP, det. GP as *Chorthippus montanus* (Charp.), coll. NMNH (Chobanov 2009a); and Varshets, FN88, 15-16.7.2000, 2 ♂♂, coll. SU.

The information of Peschev (1970, 1971, 1974) on *Chorthippus montanus* and *Chorthippus vagans* in Vrachanska Planina is due to misidentification. G. Peschev has had in mind the nominate subspecies of *Chorthippus vagans*, the only subspecies at that time known from Europe. Both *Pseudochorthippus montanus* and *Chorthippus vagans* do not occur in Bulgaria and preserved material from Vrachanska Planina belongs to *Pseudochorthippus parallelus*.

Both the species and the nominate subspecies are Eurosiberian taxa. *Pseudochorthippus parallelus* is very common in Bulgaria up to 2600 m altitude.

***Chorthippus (Chorthippus) dorsatus dorsatus* (Zetterstedt, 1821)**

*Chorthippus dichrous* Pešev 1974: 81 (nec Eversmann, 1859).

Near Parshevitsa Chalet, GN08, N 43°09', E 23°28', 1325-1470 m, mesophytic clearings with excessive pasture and isolated overgrown areas, 18.9.2012, adults, DCh obs. Toshkova Mogila Peak, GN08, N 43°12', E 23°30', 1000-1130 m, stony habitat with shrubs and herbaceous vegetation, 18.9.2012, adults, DCh obs. Between Okolchitsa place and Vola place, GN08, N 43°10', E 23°34', 1055 m, mesophytic wood clearings, 19.9.2012, adults; N 43°11', E 23°33', 970 m, ruderal stony pasture, 19.9.2012, adults, both DCh obs. Above Vratsa, GN08, 980 m, 15.9.1964, 1 ♀, leg. GP, coll. NMNH. Vratsa, GN08, the same date (Pešev 1974). At a distance of only 2.5 km beyond the borders of Vrachanska Planina, this species is found near Druzhevo, FN97, N 43°08', E 23°21', 1050 m, xeromesophytic stony meadows with partly ruderalised vegetation, 16.9.2012, adults, DCh obs.

Both the species and the nominate subspecies are Eurosiberian taxa. *Chorthippus dorsatus* is common in Stara Planina Range, Western Rhodopes and in the mountains and their foothills in Southwestern Bulgaria up to 2000 m a.s.l.

***Chorthippus (Chorthippus) oschei pusztaensis* Vedenina & Helversen, 2009**

*Stenobothrus (Chorthippus) albomarginatus* Nedelkov 1908: 419 (nec De Geer, 1773).

*Chorthippus albomarginatus* Buresch & Peschev 1955: 64 (nec De Geer, 1773).

*Chorthippus albomarginatus albomarginatus* Pešev 1974: 81 (nec De Geer, 1773).

*Chorthippus oschei* v. Helversen, 1989: Chobanov 2009a: 18, Fig. 10.

Parshevitsa Chalet, GN08, 1250 m, 14.9.1964 (Pešev 1974; Chobanov 2009a). Vratsa, GN08 (Nedelkov 1908; Buresch & Peschev 1955: 62, as Vratsa area; Chobanov 2009a). Beyond the borders of Vrachanska Planina, it is found in the lowland about 2 km east of Vratsa [between Vratsa and Kostelevo], 30.6.2002, 2 ♂♂ paratypes, 1 ♀ paratype, song recording in 1 ♂, leg. V. Vedenina, coll. V. Vedenina, Moscow (Vedenina & Helversen 2009).

*Chorthippus oschei* is reported quite recently for the first time for Bulgaria (Chobanov 2009a). Before that time, it has been considered erroneously as *Chorthippus (Chorthippus) albomarginatus* (De Geer, 1773), a species distributed only in North and Central Europe. During the publication of the first records for Bulgaria, the populations in the Balkan Peninsula (except the Greek ones), Hungary, Moldova and Ukraine were described as a distinct subspecies by Vedenina & Helversen (2009).

Both the species and the subspecies are Southeastern European taxa. In Bulgaria, this rare and fragmentarily distributed grasshopper occurs up to 2000 m altitude.

***Chorthippus (Glyptobothrus) brunneus brunneus* (Thunberg, 1815)**

Close to Vrachanska Planina but beyond its borders, this species is collected near Varshets, FN88, 14.7.2000, 4 ♀♀; 15.7.2000, 1 ♂, both coll. SU.

Both the species and the nominate subspecies are Eurosiberian taxa. *Chorthippus brunneus* occurs in whole North Bulgaria while in South Bulgaria reaches southwards to Ruy Mts., Vitosha Mts., northern slopes of Rila Mts. and northwestern slopes of the Rhodopes up to 2000 m a.s.l. Undoubtedly, it inhabits Vrachanska Planina.

***Chorthippus (Glyptobothrus) biguttulus cf. hedickei* (Ramme, 1942)**

*Stenobothrus (Stauroderus) biguttulus* Nedelkov 1908: 419.

Near Parshevitsa Chalet, GN08, N 43°09', E 23°28', 1325-1470 m, mesophytic clearings with excessive pasture and isolated overgrown areas, 18.9.2012, adults, DCh obs. Parshevitsa Chalet, GN08, 1200 m, 14.9.1964, 1 ♂, leg. GP, coll. NMNH. Between Eliseina and Parshevitsa Chalet, GN07, N 43°08', E 23°30', 1345 m, stony slope surrounded by mesoxerophytic herbaceous vegetation above a forest of *Fagus sylvatica* and below the rocky cliff, 20.9.2012, adults, DCh obs. Vratsata place above Zgorigrad, GN08, N 43°12', E 23°30', 860 m, trees and grass vegetation on rocky terrain, 18.9.2012, adults, DCh obs. Toshkova Mogila Peak, GN08, N 43°12', E 23°30', 1000-1130 m, stony habitat with shrubs and herbaceous vegetation, 18.9.2012, adults, DCh obs. Between Okolchitsa place and Vola place, GN08, N 43°11', E 23°33', 970 m, ruderal stony pasture, 19.9.2012, adults, DCh obs. Vratsa, GN08 (Nedelkov 1908).

Two subspecies of this species occur in Bulgaria. Populations in the northwestern third of the country differ in morphology and song from *Chorthippus biguttulus euhedickei* Helversen, 1989, the subspecies inhabiting the rest of Bulgaria. Most likely they belong to *Chorthippus biguttulus hedickei*. The material of Nedelkov from Vratsa is not preserved and although the locality is situated in the middle of the range of the subspecies *hedickei* in Bulgaria, this record needs confirmation because of possible confusion with *Chorthippus brunneus*.

*Chorthippus biguttulus hedickei* belongs to the Southeastern European chorotype, while *Chorthippus biguttulus* is a Western Palearctic species. *Chorthippus biguttulus* inhabits Bulgaria up to 2000 m a.s.l. *Chorthippus biguttulus hedickei* occurs in Bulgaria to the northwest of the line Osogovo Mts. – Vitosha Mts. – Tetevenska Planina Mts. (in Central Stara Planina Range) – Sevlievo (in the Danubian Plain) from 500 to 1800 m a.s.l.

***Chorthippus (Glyptobothrus) mollis mollis* (Charpentier, 1825)**

Above Gorno Ozirovo, FN98, N 43°14', E 23°24', 370 m, xeromesophytic meadows with shrubs and groves of *Carpinus orientalis*, 17.9.2012, adults, DCh obs. Between Okolchitsa place and Vola place, GN08, N 43°11', E 23°33', 970 m, ruderal stony pasture, 19.9.2012, adults, DCh obs. Zverino, GN07, N 43°05', E 23°33', 500 m, ruderal stony habitat with young trees of *Carpinus*, 19.9.2012, adults, DCh obs. At a distance of only 2.5 km beyond the borders of Vrachanska Planina, this species is found near Druzhevo, FN97, N 43°08', E 23°21', 1050 m, xeromesophytic stony meadows with partly ruderalised vegetation, 16.9.2012, adults, DCh obs.

Both the species and the nominate subspecies are Eurosiberian taxa. *Chorthippus mollis* is a common species in Bulgaria up to 1800 m altitude, more abundant in the mountains and their foothills than in the lowlands.

***Gomphocerippus rufus* (Linnaeus, 1758)**

Near Parshevitsa Chalet, GN08, N 43°08', E 23°28', 1450 m, stony area at the rocky cliff overgrown with grass, 18.9.2012, adults, DCh obs. Between Eliseina and Parshevitsa Chalet, GN07, N 43°08', E 23°30', 1345 m, stony slope surrounded by mesoxerophytic herbaceous vegetation above a forest of *Fagus sylvatica* and below the rocky cliff, 20.9.2012, adults, DCh obs. Vratsata place above Zgorigrad, GN08, N 43°12', E 23°30', 860 m, trees and grass vegetation on rocky terrain, 18.9.2012, adults, DCh obs. Toshkova Mogila

## ORTHOPTERA, BLATTODEA AND MANTODEA

Peak, GN08, N 43°12', E 23°30', 1000-1130 m, stony habitat with shrubs and herbaceous vegetation, 18.9.2012, adults and last instar nymphs, DCh obs.

*Gomphocerippus rufus* is a Eurosiberian species. This fragmentarily distributed in Bulgaria species inhabits the six highest and several lower mountains in Southwestern Bulgaria from 500 m (usually from 1000 m) up to 2200 m a.s.l.

### BLATTODEA

#### BLABEROIDEA

##### ECTOBIIDAE

###### ECTOBIINAE

###### ***Ectobius (Ectobius) erythronotus* Burr, 1898**

*Ectobia panzeri* [sic!] Drenski 1939: 7 (nec Stephens, 1835).

*Ectobius lapponicus* Buresch & Peschev 1957: 317 (nec Linnaeus, 1758).

Cherepish Monastery, GN17, 2.5.1905, leg. I. Buresch (Drenski 1939; Buresch & Peschev 1957).

The current name of *Ectobius panzeri* is *Capraiellus panzeri* (Stephens, 1835). Its range covers Western Europe and Northwestern Africa. Buresch & Peschev (1957: 319) checked the specimens in coll. NMNH reported by Drenski (1939) as *Ectobia panzeri* from many localities and determined them as belonging to *Ectobius lapponicus* (Linnaeus, 1758). They considered however *Ectobius erythronotus* as a morph of *Ectobius lapponicus* and identified all specimens published by Drenski under the name *Ectobia panzeri* as belonging to this morph (Buresch & Peschev 1957: 315). A possibility that the specimens mentioned by Drenski include females of *Ectobius lapponicus* exists as well because, most likely for that time, Buresch & Peschev (1957) may have distinguished *Ectobius lapponicus* and *Ectobius erythronotus* only by the colour of the pronotum.

*Ectobius erythronotus* is a European species. It is common and widely distributed in Bulgaria mainly in the lowlands.

### MANTODEA

#### MANTIDAE

##### MANTINAE

###### Mantini

###### ***Mantis religiosa* (Linnaeus, 1758)**

Near Parshevitsa Chalet, GN08, N 43°08', E 23°28', 1450 m, stony area at the rocky cliff overgrown with grass, 18.9.2012, adults, DCh obs.

Palaearctic species, distributed in South Europe, Africa and Asia, and introduced in North America. It is widely distributed in Bulgaria in lowlands. The altitude of the record in Vrachanska Planina is high for this latitude. *Mantis religiosa* occurs in most cases in Bulgaria up to 1000 m and rarely in higher elevations (up to 1600-1650 m) only in the mountains, rich of thermophilous fauna, in South Bulgaria at the border with Greece.

### Species diversity

The present study covers the orders Orthoptera, Blattodea and Mantodea. So far, 81 species are found in Vrachanska Planina, 79 of them belonging to Orthoptera and the

two other orders presented with one species each. Other six species of Orthoptera have been recorded in the areas up to 5 km out of the borders of Vrachanska Planina and undoubtedly are distributed also in the mountain.

First records from Vrachanska Planina are reported here for the order Mantodea and for the following taxa of the family group: superfamily Grylloidea; families Mantidae and Gryllidae; subfamilies Mantinae, Gryllinae, Nemobiinae, Calliptaminae and Acridinae; tribes Mantini, Decticini, Gryllini, Modicogryllini, Pteronemobiini, Calliptamini, Acridini and Oedipodini.

Taxa of the genus group not published from Vrachanska Planina until the present study are 16 genera (*Mantis*, *Decticus*, *Platypleis*, *Eupholidoptera*, *Polysarcus*, *Gryllus*, *Melanogryllus*, *Modicogryllus*, *Pteronemobius*, *Calliptamus*, *Paracaloptenus*, *Miramella*, *Acrida*, *Oedipoda*, *Chrysochraon*, *Gomphocerippus*) and three subgenera (*Gryllus* s.str., *Modicogryllus* s.str., *Pteronemobius* s.str.).

The following 31 species are mentioned in the present paper for the first time for Vrachanska Planina: *Ectobius erythronotus*, *Mantis religiosa*, *Decticus verrucivorus*, *Platypleis grisea*, *Pholidoptera griseoaptera*, *Eupholidoptera schmidtii*, *Tettigonia viridissima*, *Sagapedo*, *Poecilimon fuscii*, *Polysarcus denticauda*, *Gryllus campestris*, *Melanogryllus desertus*, *Modicogryllus truncatus*, *Pteronemobius heydenii*, *Tetrix tenuicornis*, *Tetrix subulata*, *Tetrix depressa*, *Calliptamus italicus*, *Paracaloptenus caloptenoides*, *Odontopodisma montana*, *Acrida ungarica*, *Oedipoda caerulescens*, *Oedipoda germanica*, *Chrysochraon dispar*, *Euchorthippus declivus*, *Stenobothrus nigromaculatus*, *Omocestus minutus*, *Omocestus haemorrhoidalis*, *Chorthippus dorsatus*, *Chorthippus mollis* and *Gomphocerippus rufus*. We do not mention the number of subspecies not published so far from Vrachanska Planina because the subspecies affiliation of the Bulgarian populations of some species is not clarified.

The total number of published species from the investigated area is 65. Among them, 16 have been incorrectly identified. Published specimens of 27 species were found in collections and were reidentified. New unpublished material from 59 species broadens the knowledge on the species diversity and distribution of the taxa in the mountain. Thereby, 70 species altogether are proven for Vrachanska Planina with checked material. Only 11 published species are not confirmed with examined specimens but their occurrence in the area of investigation is beyond doubt. The latter include three species of Tettigonioidea, seven species of Acridoidea and one species of Blattodea.

So far, 206 species (218 taxa) of Orthoptera are known from Bulgaria (Chobanov 2009b). Thus the species number presently known from Vrachanska Planina represents 39 % of the Bulgarian fauna of Orthoptera. Taken into consideration that the order includes many thermophilous species which with certainty do not occur in the investigated mountain, we regard the exploration of Orthoptera in the study area as good.

Four species of Mantodea occur in Bulgaria. One of them is found in Vrachanska Planina. The occurrence in the mountain of another species, *Ameles heldreichi* Brunner von Wattenwyl, 1882 is possible but not very likely. The remaining two species with certainty are not distributed in the investigated area.

From Blattodea, only one record dated 110 years ago exists and the order is completely unexplored in Vrachanska Planina. The only species so far found represents 6 % of the species number in Bulgaria.



## Distribution

**Horizontal distribution.** The existing data on the treated systematic groups and the small size of Vrachanska Planina do not allow conclusions about the distribution of the species in it. Information of Nedelkov (1908) for all species is published with one and the same locality, Vratsa, and the labels in his collection in NMNH are Vratsa or Troposhansko place. Pešev (1974), as well as Peshev (1985), does not report concrete localities. In many cases the latter author mentions only "Vratsa" or "Vrachanska Planina" with a variety of altitudes (including on labels in coll. NMNH), e.g. Vratsa, 600 m, 980 m, 1200 m; Vrachanska Planina, 1100 m, 1300 m. Only the materials collected in the last years originate from various localities, with exact information on them, including geographical coordinates and data on habitat.

**Vertical distribution.** Data on the altitudinal distribution of the species by Georgi Peshev and from the last years samples are more detailed.

Most of species known from the mountain have wide altitudinal range. Species occurring from the lower to the highest parts of Vrachanska Planina are for instance *Poecilimon thoracicus* and *Ephippiger ephippiger* from Tettigoniodea, *Gryllus campestris* from Grylloidea, as well as *Pseudochorthippus parallelus* and *Stenobothrus lineatus* from Acridoidea.

Typical mountain species with a lower limit of distribution in Bulgaria running through the highest ridge of Vrachanska Planina are *Psorodonotus fieberi* from Tettigoniodea (above 1400 m a.s.l. in Bulgaria), *Gomphocerus sibiricus* and *Myrmeleotettix maculatus* from Acridoidea (above 1200 m in Bulgaria). Other species occurring only in the higher parts of the investigated area are *Pholidoptera aptera karnyi* and *Tettigonia balcanica* (Tettigoniodea), as well as *Pseudopodisma fieberi* and *Stauroderus scalaris* (Acridoidea). Common mountain species rarely inhabiting isolated localities in lowlands are for instance *Polysarcus denticauda* (Tettigoniodea) and *Podisma pedestris* (Acridoidea).

The low altitude of the foot of Vrachanska Planina enables the typical lowland species to inhabit the lower parts of its slopes and the Iskar Gorge. Examples of such species are *Tessellana veyseli*, *Ruspolia nitidula* and *Conocephalus hastatus* (Tettigoniodea), *Modicogryllus truncatus* and *Pteronemobius heydenii* (Grylloidea), *Aiolopus thalassinus*, *Acrida ungarica* and *Sphingonotus caeruleus* (Acridoidea).

## Zoogeography

Zoogeographical analysis of the orthopteran fauna in the explored area was accomplished on account of two aspects: the type of distributional range (chorotype) and the suggested category of origin (according to centres of dispersal).

**Chorology.** The chorotype for each species is presented in the List of species. Their names and coverage are after Popov (2007) with modifications and alterations. In all cases, they are applied for species, not for subspecies. The species from Vrachanska Planina belong to 25 categories. Most numerous are the representatives with Eurosiberian distribution – 16 (20 % of the species in the mountain), 15 from which belong to more widely distributed Acridoidea and only one is from Tettigoniodea. Second position is occupied by the category of Central and South European taxa with 13 species (16 %). The species of Tettigoniodea belonging to this chorotype are two times more than the species of Acridoidea. The next

chorotypes in the ranking are: Palearctic – 8 species (10 %), Southeastern European and Holomediterranean – 5 species each (6 %) and European – 4 species (5 %).

**Origin.** Categories for the centres of dispersal, i.e. for the origin, are used after the scheme of Popov (2007) in which part of the categories are according to de Lattin (1967). The species from Vrachanska Planina are divided in 14 categories of faunal elements. Most numerous are the Siberian species – 19 (23 % of the species in the mountain with predominance of Acridoidea). The Central European faunal elements are on the second position with 15 species (19 % of the species with prevalence of Tettigonioidae). They are taxa originated from the Extramediterranean European centres of dispersal. The next categories in the ranking are the Pontomediterranean (11 species or 14 %) and Holomediterranean (10 species or 12 %) faunal elements, the Montane Balkan species (7 species or 9 %) and the species with Siberian–Mediterranean distribution (6 species or 7 %). The last mentioned category unifies taxa that originated and dispersed from the Siberian centre and survived the last Pleistocene glaciations in refugia in the Mediterranean Subregion. During Interglacials they are supposed to migrate northwards from the refugia resettling the Boreal belt. Their recent ranges in the Mediterranean areas cover both the mountains and lower altitudes. The Pontomediterranean elements are divided into elements of expansive type of distribution (8 species) and of stationary type of distribution (3 species). By analogy, the Holomediterranean faunal elements are also divided into such of expansive type of distribution (9 species) and of stationary type of distribution (one species). The position of Vrachanska Planina far from the Mediterranean Subregion and from the areas of Mediterranean influence in Bulgaria explains the prevalence of species of expansive type.

**Endemic and subendemic taxa.** The endemic taxa of Orthoptera are well represented in Vrachanska Planina. The mountain harbours the endemic genus *Ancistrura*, five endemic species and the endemic subspecies *Pholidoptera aptera karnyi*. The narrowest degree of endemism and limited ranges are observed in *Isophya miksici* and *Isophya plevnensis* with ranges respectively in Northwestern Bulgaria and Central North Bulgaria. The genus *Isophya* is characterized with a high degree of endemism on the Balkan Peninsula and in Anatolia. The latter species is a Bulgarian endemic taxon. The remaining taxa are Balkan endemics. They are mountain taxa (*Psorodonotus fieberi*, *Tettigonia balcanica* and *Pholidoptera aptera karnyi*) or occur mainly in lowlands (*Ancistrura nigrovittata*). Beside them, five subendemic species and one subendemic subspecies are distributed in Vrachanska Planina. Their ranges include also the adjacent to the Balkan Peninsula areas of Italy, Romania or Turkey.

**Limits of ranges.** Because of the location of Vrachanska Planina at the northern margin of the mountains in the Balkan Peninsula, it outlines the range limits of some species. The northernmost locality of the genus *Ancistrura*, the westernmost locality of *Isophya plevnensis*, the easternmost locality of *Broughtonia domogledi* and the southernmost localities of *Leptophyes discoidalis* and *Isophya miksici* are situated within the explored area. Except for these species, Vrachanska Planina lies at the northern range limits of the genera *Broughtonia*, *Psorodonotus* and *Eupholidoptera* and of *Tettigonia balcanica* and *Pholidoptera aptera karnyi* as well as at the eastern limit of *Isophya modestior*.

**Rare species.** Some of the rarest species of Orthoptera in Bulgaria occur in Vrachanska Planina. The so far unidentified species of *Miramella* and *Leptophyes discoidalis* stand at the head of this line. *Phaneroptera falcata* and *Saga pedo* are also rare species. All abovementioned rare species except *Miramella* belong to Tettigonioidae.

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**Authors' addresses:**

ALEXI POPOV

National Museum of Natural History, Bulgarian Academy of Sciences, Tsar Osvoboditel 1, 1000 Sofia, Bulgaria, alpopov@nmnhs.com

DRAGAN CHOBANOV

Institute of Biodiversity and Ecosystem Research, Bulgarian Academy of Sciences, Tsar Osvoboditel 1, 1000 Sofia, Bulgaria, dchobanov@gmail.com

## Правокрилите насекоми (Orthoptera), хлебарките (Blattodea) и богомолките (Mantodea) на Врачанската планина

АЛЕКСИ ПОПОВ, ДРАГАН ЧОБАНОВ

### (Резюме)

Според публикувани и оригинални данни от групата на ортоптеридните разреци във Врачанската планина са установени досега 81 вида, от които 79 вида правокрили насекоми (Orthoptera) и по един вид хлебарка (Blattodea) и богомолка (Mantodea). В съседните на планината райони на разстояние до 5 км извън нейните граници са били намерени други шест вида правокрили насекоми. В настоящата статия се съобщават за първи път за Врачанската планина един разред, едно надсемейство, 2 семейства, 5 подсемейства, 8 трибуса, 16 рода, 3 подрода и 31 вида. Публикуван и оригинален материал от 70 вида е определен или ревизиран. Един подвид е синонимизиран: *Ephippiger ephippiger ephippiger* (Fiebig, 1784) (= *Ephippiger ephippiger balkanicus* Andreeva, 1985, **syn. n.**). Типични планински видове с долна граница на разпространение в България, минаваща по най-високото било на Врачанската планина, са *Psorodonotus fieberi*, *Gomphocerus sibiricus* и *Myrmeleotettix maculatus*. Констатираните видове са групирани в 25 категории по хорология и 14 категории по произход. Най-многобройни според хоротиповете са евросибирските видове (20 %), следвани от средно- и южноевропейските видове (16 %), а според произхода – сибирските (23 %), следвани от средноевропейските (19 %) фаунистични елементи. Ендемични таксони от правокрилите насекоми във Врачанската планина са един род, 5 вида и един подвид, един от които е български ендемичен вид, а останалите таксони са балкански ендемити. Най-северното, най-западното, най-източното или най-южното находище в ареалите на един род и 4 вида се намира във Врачанската планина. През планината минава северната или източната граница на ареала на други 3 рода, 2 вида и един подвид. *Leptophyes discoidalis* и *Miramella* sp. са едни от най-редките видове правокрили насекоми в България.