



BULGARIA

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Butterfly Conservation Europe Partner	National Museum of Natural History (NMNH), Sofia, Bulgarian Academy of Sciences
Local Recording Scheme	Stanislav Abadjiev compiled and collated butterfly records for the whole of Bulgaria and published a distribution atlas in 2001 (see below). Records are still being gathered and can be sent to Stoyan Beshkov at NMNH, Sofia.
Butterfly List	See Butterflies of Bulgaria website (Details below)

Introduction

Bulgaria is situated in eastern Europe with its eastern border running along the Black Sea coast. It is separated from Romania for much of its northern border by the River Danube. It shares its western border with Serbia and Macedonia, and its southern border with Greece and Turkey.

Bulgaria has a land area of almost 111,000 sq km (smaller than England but bigger than Scotland) and a declining human population of 7.15 million (as of 2015), 1.5 million of which live in the capital city, Sofia. It is very varied in both climate, topography and habitats. Substantial parts of the country are mountainous, particularly in the west, south-west and central 'spine' of the country and has the highest mountain in the Balkan Mountains (Musala peak in the Rila Mountains, 2925m) (Map 1). Almost 70% of the land area is above 200m and over 27% above 600m. About 40% of the country is forested and this is likely to increase through natural regeneration due to the abandonment of agricultural land.

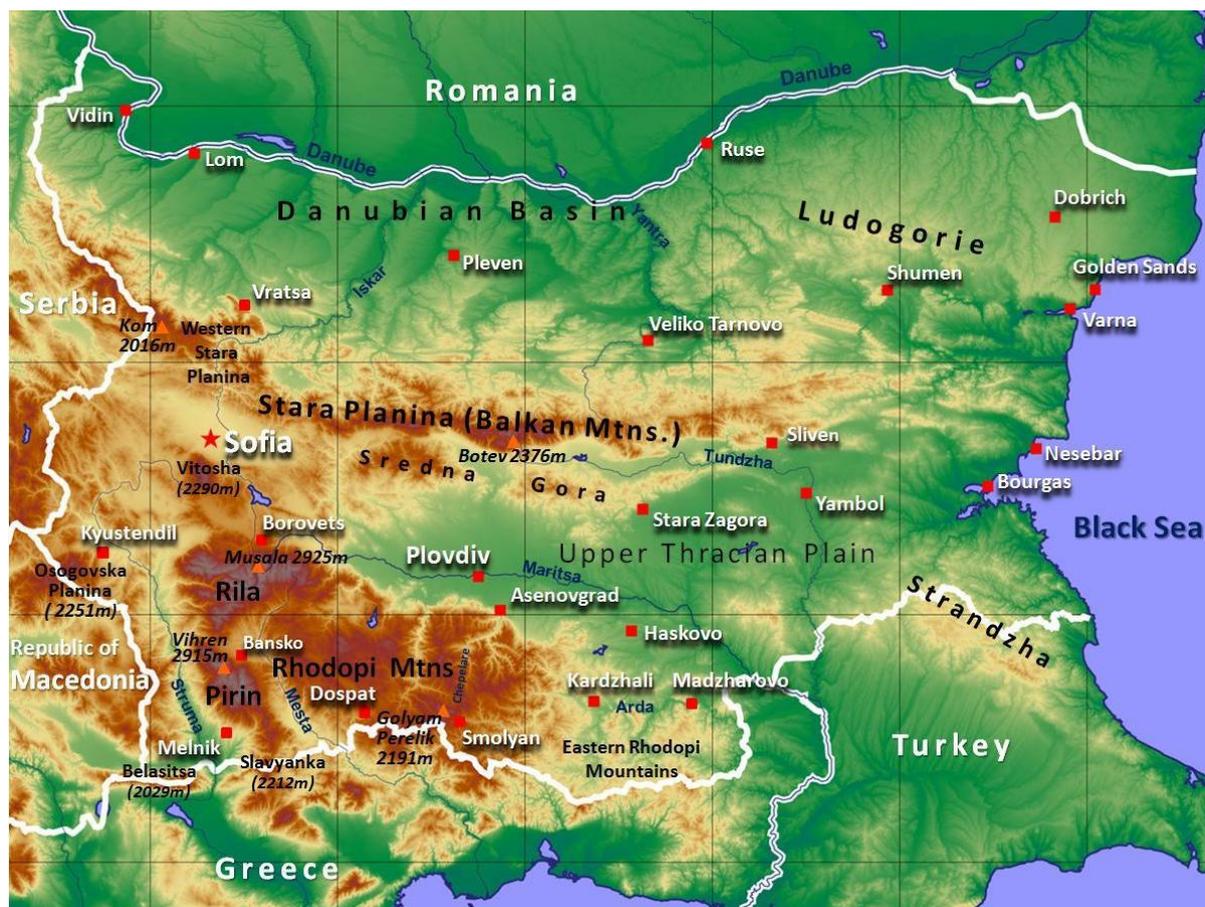
Following nearly 500 years under the rule of the Ottoman Empire, Bulgaria was independent for just a few years from 1908 before coming under the domination of the soviet communist regime in 1946. It finally gained independence in 1990 and is today a Parliamentary Democracy and has been a member of the European Union since 2007.

Because of its history, many parts of Bulgaria have escaped the ravages of modern agriculture. This is now changing in some parts, but low-intensity traditional agricultural practices can still be seen in many places including extensive grazing, hand hoeing and scything of hay meadows. Consequently many places are still rich in wild flowers and their associated insects including a rich butterfly fauna.

Threats to Bulgaria's rich wildlife include the intensification of agriculture, unregulated developments for industry, power generation and tourism. But perhaps the greatest threat is abandonment of agricultural land due to the break-up of traditional rural agricultural communities and the movement of young people to the cities or out of Bulgaria altogether.

One of the great joys of butterflying in Bulgaria is that one stop almost anywhere and find a good range of species and often something of particular interest. There is so much 'habitat' everywhere, and even in arable areas there are usually many uncultivated patches of ruderal or seminatural vegetation remaining. On top of

this it is possible to walk almost anywhere in rural areas without restriction. I have very rarely been stopped and questioned. However it is important to walk carefully between crops and not to trample hay meadows, which of course form part of the livelihood of local subsistence farmers.



Map 1. Shows the whole country of Bulgaria with its topography (including highest peaks in each mountain range) and some the main cities and towns. (Adapted from map licensed under free commons on Wikipedia).

Books & publications

Abadjiev, Stanislav P. (2001). *An atlas of the distribution of the butterflies of Bulgaria*. Pensoft, Sofia, Bulgaria. 335 pp. (In English)

The book contains distribution maps of all butterflies recorded in Bulgaria up to the year 2000, using the UTM grid with records mapped at 10²km square resolution. It provides information on the source of records for all species. Bulgaria is very under-recorded, so for many species the maps do not represent an entirely accurate picture of their distribution, and species are still being found in areas where they were not known to occur at the time of publication of this atlas.

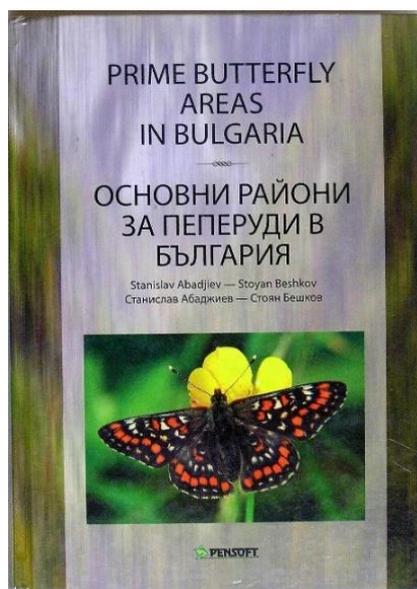
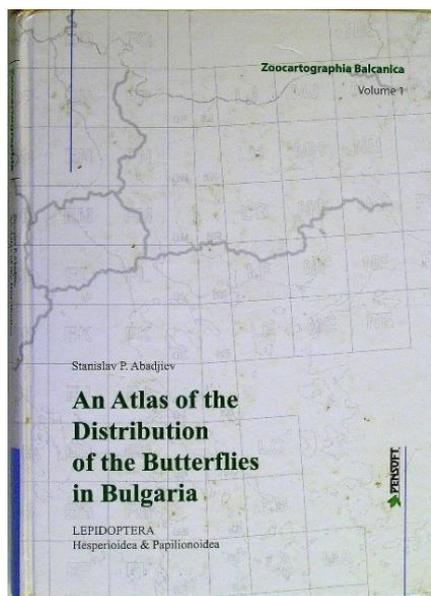
Abadjiev, Stanislav & Beshkov, Stoyan. (2007). *Prime butterfly areas in Bulgaria*. Pensoft, Sofia, Bulgaria. 222 pp.

This book identifies and describes what are considered the most important butterflies areas in Bulgaria. A simple method using target species was implemented in order to help the with the definition of the Bulgarian part of the European Union's NATURA 2000 Network. Fifty NATURA 2000 sites are properly listed and described, and in this respect the book can serve as NATURA 2000 Guide for Bulgaria. The book is richly illustrated by colour photos of species and habitats, maps, it includes species listings and data on conservation and protection. It is also available on CD.

Kolev, Zdravko & Shtinkov, N. (due out in 2014 but still in prep. as of Oct. 2015). *Butterflies of Bulgaria*.

The book will start with an Introduction to the butterflies of Bulgaria, the biogeographic division of the country and a description of basic habitat types. Species accounts will include in-depth information on range, distribution in Bulgaria, habitat, bionomics, and conservation status of all 216 butterfly species known from the country. There will be Identification keys for difficult groups with photographs of live specimens and tables

with plates of set specimens for groups where identification requires detailed examination. The final part of the book will be on the conservation of butterflies in Bulgaria and will provide a list of species of conservation interest detailing IUCN categories and criteria and provide Red List recommendations. (See: http://nsbutterflies.com/Butterflies_of_Bulgaria_coming_soon.pdf).



Other publications:

Abadjiev, S. (1992). *Butterflies of Bulgaria: Part 1, Papilionidae & Pieridae*. (Veren Scientific Monographs). Veren Publishers, Sofia, Bulgaria. 91 pp. (In English)

Abadjiev, S. (1993). *Butterflies of Bulgaria: Part 2, Nymphalidae: Lybitheinae & Satyrinae*. (Veren Scientific Monographs). Veren Publishers, Sofia, Bulgaria. 127 pp. (In English) (Has colour illustrations of set specimens of Papilionidae and Pieridae).

Abadjiev, S., (1995). *Butterflies of Bulgaria. Volume 3. Nymphalidae: Apaturinae & Nymphalinae*. Publisher: S. Abadjiev, Sofia, 159 pp. (In English)

The series of seven planned volumes is so far incomplete. Separate volumes covering the Hesperidae and Lycaenidae were planned and another two volumes on the zoogeography and ecology of Bulgarian butterflies.

van Swaay, Chris & Warren, Martin (eds). (2003). *Prime Butterfly Areas in Europe. Priority sites for conservation*. National Reference Centre for Agriculture and Fisheries, Nature Management and Fisheries, The Netherlands. [Section on Bulgaria by Stanislav Abadjiev, pp128-139].

Useful guide books

Kay, A. 2015 (second edition). *Bulgaria*. Bradt Travel Guides. Bradt (UK). 312 pp. [A comprehensive guide on all aspects of Bulgaria, where to go, where to stay and what to see. Includes some information on butterflies and other wildlife].

Perry, J. 2010. *Walking in Bulgaria's National Parks: Rila, Pirin and Central Balkan National Parks*. A Cicerone Guide. Cicerone, Milnthorpe, Cumbria. 256 pp. [A walkers guide with lots of information on the three National Parks and what to see there].

Hilbers, D., Tabak, A., Vliegthart, A. & Dierickx, H. 2013. *Eastern Rhodopis: Nestos, Evros and Daia - Bulgaria and Greece*. Crossbill Guides. Crossbill Guides Foundation, Arnhem, Netherlands. 255 pp. [This beautifully illustrated guide with numerous photographs and maps containing much information about the landscape of the Eastern Rhodopis, its habitats, wildlife and its conservation (includes some information on butterflies). A major section of the book shows routes (with maps) for walkers/hikers - and what to see].

Websites

Butterflies of Bulgaria: <http://www.butterfliesofbulgaria.com/>

The website was authored and is run by Zdravko Kolev, a native Bulgarian and butterfly specialist. He has written a number of scientific papers on Bulgarian butterfly species, especially on species of Lycaenidae.

The website provides a list of all butterflies resident or recorded in Bulgaria. For each species he provides information, and in most cases photographs, on distribution, habitat, bionomics and conservation status.

In his introduction Kolev reviews the main habitats found in Bulgaria and lists some of the key butterfly species that occur in these habitats.

Bulgaria butterflies: <http://nsbutterflies.com>

The website was authored and is run by Nikolay Shtinkov.

The site currently has photographs of over 200 butterfly species. All species that occur in Bulgaria are listed by taxonomic family.

Butterflies and moths of Bulgaria: <http://www.bulgarialeps.com>

The website was authored and is run by Nick Greatorex-Davies. The basic structure of the website was built by Peter Bissell.

The website aims to provide (eventually!) at least some information on all Lepidoptera species that have been recorded in Bulgaria. There is a separate page for each species of butterfly and already for many species of moth. Each species page has, or will have where available, photographs (of adults and their habitat), and summary information on ecology and life history of the species concerned. Photographs of young stages are also being added where available.

There is an expandable map for each species (based on Google Maps) showing the distribution of records (UTM grid) of the species from butterfly and moth tours organised through the British-Bulgaria Society since 2003 (currently only 2012-2014). Other data from other sources could be added in due course.

Identification tips for species that can be difficult to separate are being put together, illustrated with labelled photographs.

Holidays

There are plenty of reasonably priced hotels and guest houses throughout Bulgaria, though it is best to find them through recommendation, as some can be disappointingly poor.

A useful guide for those wanting to holiday in Bulgaria is the **Bradt Travel Guide to Bulgaria**, written by Dr Annie Kay (who has run the British-Bulgarian Society tours for many years)(details on previous page).

Several tour companies offer butterfly tours to Bulgaria and all will also run tours to order.

Balkan Trek (www.balkantrek.com) offers a range of wildlife and special interest tours including two butterfly tours annually.

British-Bulgarian Society (<http://www.b-bs.org.uk/>) is a British-based tour company that offers a range of wildlife and special interest tours including several butterfly and moth tours a year.

Neophron (<http://www.neophron.com>) is a Bulgarian tour company offering a range of wildlife tours including a butterfly tour.

Spatia Wildlife (<http://wildlife.spatia-tour.com>) is a Bulgarian tour company offering a range of wildlife tours including several butterfly tours annually.

Sites and species

The roughly rectangular country of Bulgaria is divided across the middle (east to west) by the eastern extension of the Balkan Mountains, known as the Stara Planina. Two distinct climatic zones are represented in Bulgaria, temperate continental, generally to the north of the Stara Planina, and sub-Mediterranean to the south.

Butterflies range from those widespread across Europe, from those associated with a Mediterranean climate, e.g. the **Mediterranean Skipper** (*Gegenes nostradamus*), to those associated with the refuges provided by arctic-alpine habitats on high mountains; from the wide variety of rocky habitats, grasslands through to dense forest; from wooded riverine habitats to open wetlands; from the rich habitats on calcareous rocks to those on acidic rocks. Also important are the many ruderal habitats created by frequent human influenced disturbance, especially in poorer agricultural areas. It also has a number of species that are on the western limit of their range. Often one can find a wide range of habitats in close juxtaposition and one may be able to see as many as 80 or more species of butterfly in a day at the height of the season.

There are **225 butterfly species** on the Bulgarian list. However for seven of these species there are either no certain records, or the records are based on a very small number of museum specimens but the locality data is suspect, and so their presence on the Bulgaria list requires confirmation. For a further two species their specific status is now seriously questioned and these have not been included here. These are the **Balkan Green-veined White** (*Pieirs balcana*) and the **Falakron Blue** (*Polyommatus andronicus*), now considered by many to be no more than sub-species of **Green-veined White** (*Pieris napi*) and **Common Blue** (*Polyommatus icarus*) respectively.

This leaves **216 species** definitely recorded in Bulgaria. This compares very favourably with other countries in Europe, especially in view of its small size (approx. 111,000 sq km) compared with many other countries. The slightly larger Greece (130,000 sq km) to the south has approximately 232 butterfly species, The much larger Romania (234,000 sq km) to the north has 182 species, Serbia (88,000 sq km) to the west has 198 butterfly species. Bulgaria is one of the biodiversity hotspots for butterfly species richness in Europe (van Swaay & Warren 2003). This is due to the different climatic zones and wide range of altitudes and geology and its geographic location.

However of these there are no recent records for a further four species and these may now be extinct in Bulgaria. These are **Danube Clouded Yellow** (*Colias myrmidone*), **Damon Blue** (*Polyommatus damon*), **Woodland Brown** (*Lopinge achine*) and **False Ringlet** (*Coenonympha oedippus*).

Also included among the 216 are four recent additions, the **Violet Copper** (*Lycaena helle*) (discovered in NW Bulgaria in 2012), the **Geranium Bronze** (*Carcyreuus marshali*) (discovered breeding in SW Bulgaria in 2014), the **Bosnian Blue** (*Plebejus dardanus*) (first found breeding in the Central Pirin Mountains in 1999) and the **Pigmy Skipper** (*Gegenes pumilio*) (found in SW Bulgaria in 2013). Also included are two species whose presence on the Bulgaria list required confirmation, namely the **Grass Jewel** (*Chilades trochylus*) (a colony was discovered in SW Bulgaria in 2012), and the **Alpine Grizzled Skipper** (*Pyrgus andromedae*) (found in the marble part of the Pirin Mountains). The **Yellow-legged Tortoiseshell** (*Nymphalis xanthomelas*) had not been recorded in Bulgaria for several decades and was considered probably extinct. However in recent years there have been a number of records, including evidence of breeding. Also confirmed on the Bulgarian list in recent years is the **False Comma** (*Nymphalis vaualbum*) (Western Stara Planina), but presumably only as immigrants or from temporary breeding populations.

This brings the total number of species currently known to occur in Bulgaria to **212 species**. This includes three non-resident common summer breeding immigrants, the Long-tailed Blue (*Lampides boeticus*), **Lang's Short-tailed Blue** (*Leptotes pirithous*) and the **Painted Lady** (*Vanessa cardui*). **Cleopatra** (*Gonepteryx cleopatra*) occurs only as an immigrant but is very rarely recorded.

Of the 216 species, more than 80 may be considered as widespread and often common. At least another 45 species are widespread (at least south of the Stara Planina) but local (some very local in occurrence). These are listed under these categories in the Appendices at the end of this document.

It is likely that there are still discoveries to be made in Bulgaria, especially in poorly recorded areas. Certainly species will be found beyond their currently known range and all records of clearly identified butterflies should be submitted to the Museum of Natural History in Sofia (see address at start of this country page).

There are four species protected by law in Bulgaria. These are **Balkan Clouded Yellow** (*Colias caucasica*), **Apollo** (*Parnassius apollo*), **Bulgarian Ringlet** (*Erebia orientalis*) and **Nicholl's Ringlet** (*Erebia rhodopensis*). Butterfly nets can be used in Bulgaria, but permission should be sought to use nets in National Parks and possibly some other protected areas. Bulgaria has three National Parks these are Rila, Pirin and Central Balkan National Parks, details can be found at: https://en.wikipedia.org/wiki/List_of_protected_areas_of_Bulgaria.

Balkan endemics

Bulgaria has no truly endemic species. However it has seven species which are endemic to the Balkan Peninsula (the Balkans) (see https://commons.wikimedia.org/wiki/File:Balkan_topo_fr.svg). These species are as follows:

Balkan Clouded Yellow (*Colias caucasica*). Apart from Bulgaria this mountain butterfly is only found in north-western Greece, Macedonia, and in the Dinaric Alps in Montenegro and Bosnia-Herzegovina. In Bulgaria it is found above about 1100m to about 2200m (Kolev) very locally in the Rila Mountains, but also on Vitosha Mountain, just south of Sofia, and in the Osogovska Planina on Bulgaria's western border with Macedonia. Among other differences it has deeper orange uppersides than its common congener the **Clouded Yellow** (*Colias crocea*), nevertheless females can sometimes be hard to distinguish. It flies in June and July in areas where its bushy hostplant, *Chamaecytisus absinthioides* is abundant. It is protected by law.



Balkan Clouded Yellow (*Colias caucasica*), female.
Osogovska Planina, July 2013
© Nick Greatorex-Davies

Grecian Anomalous Blue (*Polyommatus aroaniensis*). One of many closely related species, it has a very restricted distribution occurring only in Greece, Macedonia and Bulgaria. It is fairly widespread in the mountains of Greece but in Bulgaria it is very localised in calcareous mountain areas from about 700m to about 1700m (Kolev), only being known from the mountains of Alibotush on the Greek border (also known as Slavyanka Mountain), south Pirin, Western Rhodopi and the Eastern Stara Planina near Sliven. Contrary to what is indicated in some identification guides, this species sometimes has a white stripe on the underside of the hindwing, making it easy to confuse with other closely related species that occur with it. Adults fly from late June to early August. Larvae feed on the sainfoin *Onobrychis ebenoides*.



Grecian Anomalous Blue (*Polyommatus aroaniensis*)
male. South Pirin, July 2009
© Nick Greatorex-Davies



Grecian Anomalous Blue (*Polyommatus aroaniensis*)
male. South Pirin, July 2008
© Nick Greatorex-Davies

Higgin's Anomalous Blue (*Polyommatus nephohiptamenos*) is very similar to the preceding species, but has an even more restricted range, occurring very locally from about 1400m to about 2100m (Kolev) on calcareous mountains in a small area of northern Greece (Mt. Falakron and Mt. Orvilos), and in SW Bulgaria on Mt. Alibotush and central Pirin. It flies in July and August. The larvae feed on sainfoins (*Onobrychis* spp.)



Higgins Anomalous Blue (*Polyommatus nephohiptamenos*) male. South Pirin, July 2010
© Nick Greatorex-Davies



Higgins Anomalous Blue (*Polyommatus nephohiptamenos*) male. South Pirin, July 2008
© Nick Greatorex-Davies

Kolev's Anomalous Blue (*Polyommatus orphicus*). This species was first described by Zdravko Kolev (2005). It is very difficult to distinguish from other similar species in the field. It is only known from rocky calcareous areas in the Rhodopi mountains, all but one site in Bulgaria, the other site being in northern Greece.



Kolev's Anomalous Blue (*Polyommatus orphicus*)
Western Rhodopi, July 2012.
© Mike Skelton

The near endemic **Bulgarian Ringlet** (*Erebia orientalis*) was previously considered to be a sub-species of the **Mountain Ringlet** (*Erebia epiphron*). It's range lies almost entirely within Bulgaria, outside of Bulgaria extending just into the Serbian part of the Western Stara Planina. In Bulgaria It occurs very locally above 1900m on open subalpine and alpine grassland in the Rila and Pirin Mountains and in the Central and Western Stara Planina. It is protected by law.



Bulgarian Ringlet (*Erebia orientalis*), male.
Belmeken, Rila Mountains, July 2008
© Nick Greatorex-Davies



Bulgarian Ringlet (*Erebia orientalis*), female.
Western Stara Planina, July 2014
© Nick Greatorex-Davies

Nicholl's Ringlet (*Erebia rhodopensis*). This species is only known from a few isolated high mountain areas in Bulgaria, on the Greek-Albanian border, the Macedonia-Serbian border and the Serbian-Albanian-Montenegro borders. In Bulgaria it is widespread but local on open alpine grassland at high altitudes in the Rila and Pirin Mountains and in the central Stara Planina above 1900m. It can be abundant where it occurs. It flies in July. It was previously considered to be a sub-species of the **False Mneustra Ringlet** (*Erebia aethiopella*). It is also superficially similar to the Silky ringlet (*Erebia gorge*), (which also occurs in Bulgaria), but it occurs on open grassland not rocky scree and pinacles like the latter species. It is protected by law.



Nicholl's Ringlet (*Erebia rhodopensis*), male.
SW Rila Mountains
© Nick Greatorex-Davies



Nicholl's Ringlet (*Erebia rhodopensis*), male.
SW Rila Mountains
© Nick Greatorex-Davies

Dil's Grayling (*Pseudochazara orestes*). This species has a very restricted range, known only from Mount Orvilos, Mount Melikion and the Mount Falakron massif in northern Greece to about 1900m, and in Bulgaria, from a few hot rocky sparsely vegetated south-facing marble hillsides in the southern part of the South Pirin mountains to about 900m. It flies in late June and in July. It is categorised as Vulnerable in the European Red List.



Dil's Grayling (*Pseudochazara orestes*).
Northern Greece
© Nigel Peace



Map 2. The Balkan Peninsula. (This file is licensed under the [Creative Commons Attribution-Share Alike 3.0 Unported](https://creativecommons.org/licenses/by-sa/3.0/) license.)

The following 'Bulgarian' species only occur in the Balkans in Europe:

- **Eastern Festoon** (*Zerynthia cerisy*). Widespread in Bulgaria at lower altitudes, sometimes locally common. Outside the Balkans it also occurs in the western half of Turkey and other countries in western Asia.
- **Krueper's Small White** (*Pieris krueperi*). Very locally on hot steep rocky hillsides and gorges where *Alyssum* spp. grow, at lower altitudes (up to 1000m) from the Stara Planina southwards. Also Greece, Macedonia, Turkey and other parts of Western Asia.
- **Small Bath White** (*Pontia chloridice*). Very local and rare in southern half of Bulgaria, in northern Greece and Macedonia. Hot dry rocky places usually in or near river valleys. East to Central Asia.



Krueper's Small White (*Pieris krueperi*), male.
Eastern Rhodopi. June 2010
© Nick Greatorex-Davies



Small Bath White (*Pontia chloridice*), male.
SW Rila Mountains. June 2013
© Nick Greatorex-Davies

- **Eastern Greenish Black-tip** (*Euchloe penia*). Extremely local and rare in Bulgaria, only occur on a few hot rocky hillsides in South Pirin. Occurs more frequently in Greece and Macedonia and extends across parts of the Middle East.
- **Grüner's Orange-tip** (*Anthocharis gruneri*). Very local in the extreme SW of Bulgaria in the Struma valley, South Pirin and Alibotush. South Balkans across to parts of Western Asia.



Eastern Greenish Black-tip (*Euchloe penia*), male.
Northern Greece, May 2014
© Nick Greatorex-Davies



Grüner's Orange-tip (*Anthocharis gruneri*), male.
SW Rila Mountains. May 2014
© Nick Greatorex-Davies

- **Powdered Brimstone** (*Gonepteryx farinosa*). It is only known from the extreme SW of Bulgaria in the Struma valley. Like the ordinary Brimstone (*Gonepteryx rhamni*), this species emerges as an adult in the summer, hibernates and flies again in the early spring. It can be fairly easily separated from the **Brimstone** but differences between the two species are subtle. Larvae feed on Christ's Thorn (*Paliurus*

spina-christi). Elsewhere in the Balkans it occurs in Greece, Macedonia and Albania, then across to Central Asia.

- **Grecian Copper** (*Lycaena ottomana*). Most easily found along the Black Sea coast, mainly south of Bourgas, also inland in Strandzha in SE Bulgaria. Can be quite common. Elsewhere found in hot valleys in the Eastern Rhodopi Mountains and SW Bulgaria (Struma valley). Confined to south Balkans and southern Turkey.
- **Little Tiger Blue** (*Tarucus balkanicus*). Very local in hot dry open bushy places where its hostplant Christ's Thorn (*Paliurus spina-christi*) grows. Southern Balkans across to Central Asia and also NW Africa.



Grecian Copper (*Lycaena ottomana*), male.
Strandzha, June 2012
© Nick Greatorex-Davies



Little Tiger Blue (*Tarucus balkanicus*), male.
Eastern Rhodopi. June 2011
© Nick Greatorex-Davies

- **Grass Jewel** (*Chilades trochylus*). Until recently only one unconfirmed record from Strandzha in the extreme SE of Bulgaria. In 2012 a small colony was discovered near the Greek border in SW Bulgaria, but has not been seen there since. Across to Central Asia and in Central Africa.
- **Bosnian Blue** (*Plebejus dardanus*). Very localised and rare species in Europe. Occurs on marble mountain peaks above about 1800m on open rocky terrain where its hostplant Rock Jasmine (*Androsace villosa*) grows. In Bulgaria on Mount Alibotush and in Central Pirin (Orelek). Elsewhere in the Balkans it occurs at one site in Macedonia and a handful of mountain peaks in the Dinaric Alps. Elsewhere it occurs in Turkey, especially in the east and is widespread the Caucasus Mountains.
- **Balkan Marbled White** (*Melanargia larissa*). Local mostly to the south of the Stara Planina but also occurs in NW Bulgaria. Hot rocky or bushy places mostly on calcareous terrain. Elsewhere widespread in much of the Balkans (not northern Serbia) and throughout Turkey.



Bosnian Blue (*Plebejus dardanus*), male.
Central Pirin, July 2011
© Nick Greatorex-Davies



Balkan Marbled White (*Melanargia larissa*), male.
Eastern Rhodopi. June 2014
© Nick Greatorex-Davies

- **Eastern Rock Grayling** (*Hipparchia syriaca*). Widespread but local mostly south of the Stara Planina. Replaces Rock Grayling in the Balkans. However it is easily confused with the similar **Woodland Grayling** (*Hipparchia fagi*), with which it often occurs. Elsewhere occurs across Western Asia.
- **Southern Grayling** (*Hipparchia senthes*). Occurs locally in hotter parts of southern Bulgaria as does the very similar **Delattin's Grayling** (*Hipparchia volgensis*). The **Grayling** (*Hipparchia semele*) generally occurs at higher altitudes in southern Bulgaria than either of these species. The three species are very difficult to separate in the field, requiring examination of the genitalia. The **Southern Grayling** is confined to the Balkans and Turkey.
- **Freyer's Grayling** (*Hipparchia fatua*). Most widespread in SW Bulgaria in the Struma valley up to and including Kresna Gorge. Elsewhere very local in hot dry areas in the Eastern Rhodopis and along the Black Sea Coast. Elsewhere occurs in parts of Western Asia.
- **White-banded Grayling** (*Pseudochazara anthelea*). Very local and rare in SW Bulgaria south of the Kresna Gorge on hot dry often steep rocky terrain. Occurs in the southern Balkans, Turkey and N Iraq.
- **Persian Skipper** (*Spialia phlomidis*). Very local known from a few scattered locations across central southern and SW Bulgaria in hot dry rocky places usually on calcareous soils. Occurs in the southern half of the Balkans and parts of Western Asia.
- **Inky Skipper** (*Erynnis marloyi*). Rare and very local species known only from the Struma valley in SW Bulgaria up to and including Kresna Gorge. Known for its habit of hill-topping. Elsewhere it occurs across the southern Balkans, Turkey and other parts of Western Asia.



Freyer's Grayling (*Hipparchia fatua*), male.
SW Bulgaria, July 2013
© Nick Greatorex-Davies



Inky Skipper (*Erynnis marloyi*).
SW Bulgaria. May 2015
© Tihomir Stephanov

Areas and sites

One of the joys of butterflying in Bulgaria is that one can find a good variety of butterflies almost anywhere one stops, however there are many areas that are particularly good for butterflies where one or more of the rarer or more specialist species can be found. The south-west of Bulgaria is where butterfly species richness is greatest. Below are descriptions of a selection of the main areas that are particularly good for butterflies, with examples of some of the butterflies that can be found there. Some widespread species (see Appendix I and II) are included below where these places are particularly good for these species. However there are many more sites and areas that could be covered, too numerous to be dealt with here. The approximate location of those covered here is shown on Map 3.

Nearly 34% of the land area of Bulgaria has been designated as Natura 2000 sites, (<http://www.moew.government.bg/?show=top&cid=182&lang=en>). There are also 50 Prime Butterfly Areas which largely fall within the Natura 2000 sites. Details of the **Prime Butterfly Areas of Bulgaria** are given in Abadjiev and Beshkov (2007) (see under books above). Details can also be found at: http://www.nmhs.com/butterfly_areas_bg/



Map 3. Location of areas described in the following section. (Adapted from map licensed under free commons on Wikipedia).

1. Vitosha Mountain

Due to its proximity to Sofia, this small (19 by 17 km), but high mountain (highest peak 2290m), has been well studied in terms of its butterfly species. The mountain is made from non-calcareous rocks and the soil pH is low. Nevertheless many butterfly species can be found here or in the vicinity of the mountain. The mountain is easily accessible by road as the mountain is used for skiing during the winter. Species that can be found on the mountain include **Apollo**, **Clouded Apollo** (*Parnassius mnemosyne*), **Balkan Copper** (*Lycaena candens*), **Alcon Blue** (*Phengaris alcon*), **Geranium Argus** (*Aricia eumedon*), **Eros Blue** (*Polyommatus eros* spp. *eroides*), **Poplar Admiral** (*Limenitis populi*), **Balkan Fritillary** (*Boloria graeca*), **Northern Wall Brown** (*Lasiommata petropolitana*), several *Erebia* spp., including **Water Ringlet** (*Erebia pronoe*) and **Bright-eyed Ringlet** (*Erebia oeme*) and **Chequered Skipper** (*Carterocephalus palaemon*). There are a few small populations of **Dusky Large Blue** (*Phengaris nausithous*) in the Lyulin Planina, NW of Vitosha Mountain, but their precise locations are a closely guarded secret.

2 & 3. Rila & Pirin Mountains

These two adjacent and well-defined mountain ranges lie south of Sofia (and Vitosha Mountain) in SW Bulgaria, bordered to the west by the Struma river valley, and to the east by the Mesta river valley which separates them from the Rhodopi Mountains further to the east. Although not geologically part of the Balkan Mountains they contain the highest mountains in the Balkans (and the highest mountains between the Alps and the Caucasus Mountains). The highest peaks are Musala (Rila), rising to 2925m and Vihren (Pirin) rising to 2914m. The two adjacent mountain ranges are separated by the Predela Saddle, with the highest point on the road between the two ranges being Predela Pass at 1158m. Both mountain areas are rich in butterflies.

2. Rila Mountains

The Rila mountains rise sharply out of the surrounding landscape and are characterised by many high peaks (140 over 2000m) covering an area of 2629 sq km. The range is cut into by several long deep valleys, including, from the west, the valley that leads up to the famous Rila Monastery. Unlike the Pirin mountains there is little limestone, most of the range being formed of silicate rocks which usually produce acidic soils. Much of the higher parts of the mountain range fall within the Rila National Park (810 sq km).

Because of the extent of the area and the wide range of altitudes and habitats, Rila hosts a large proportion of Bulgaria's butterfly fauna. Many of these it also shares with the Pirin Mountains (see below). A range of arctic-alpine, (or at least high altitude), species occur on Rila. These include 13 of the 14 **ringlet** (*Erebia* spp.) species that occur in Bulgaria (Table 1). Of these the **Dewy Ringlet** (*Erebia pandrose*) only occurs in Rila, and is widespread and sometimes common on alpine grassland above about 2300m. The fourteenth species, the **Almond-eyed Ringlet** (*Erebia alberganus*) is only found in the Stara Planina. Other species in this high altitude category include **Shepherd's Fritillary** (*Boloria pales*), **Balkan Fritillary**, **Cynthia's Fritillary** (*Euphydryas cynthia*) (can sometimes be numerous), **Eastern Large Heath** (*Coenonympha rhodopensis*) and **Dusky Grizzled Skipper** (*Pyrgus cacaliae*). All can be found without too much difficulty if one is prepared to trek up high or use one of the available gondolas. From all sides there are a number of good places from which one can gain access to higher altitudes.

Lower down the mountainsides and in the valleys, a wide range of interesting species can be found. These include the **Balkan Clouded Yellow**, **Balkan Copper**, **Scarce Copper** (*Lycaena virgaurea*), **Idas Blue** (*Plebejus idas*), which can often be common where its hostplant, *Chamaecytisus*, is abundant. The **Poplar Admiral**, which can readily be found in its season in clearings and on forest tracks in the wooded valleys at moderate altitudes. Also here may be found, **Small Pearl-bordered Fritillary** (*Boloria selene*) which is a very localised and generally rare butterfly in Bulgaria. It occurs in damp meadows and hollows to above the tree line. By contrast its close relative the **Pearl-bordered Fritillary** (*Boloria euphrosyne*) is widespread and frequent at moderate altitudes, and can be common. Other species include **Geranium Argus**, **Eros Blue**, **Turquoise Blue** (*Polyommatus dorylas*), **White Admiral** (*Limenitis camilla*), **Chestnut Heath** (*Coenonympha glycerion*), **Tufted Marbled Skipper** (*Carcharodus flocciferus*) and **Chequered Skipper** among many others.

NOTE: Until fairly recently the **Eros Blue** (*Polyommatus eros*) in Bulgaria, was considered to be a separate species and was known as the **False Eros Blue** (*Polyommatus eroides*). However recent genetic studies indicate that is only sub-species of the **Eros Blue** (*Polyommatus eros* spp. *eroides*).

NOTE: In Bulgaria the **Idas Blue** occurs as the subspecies *baldur* (formerly known as *magnagraecum*), which is very similar to the **Silver-studded Blue** (*Plebejus argus*), in that it has wide dark borders to the upper wings, making certain identification of the species in the field difficult (without capturing males and looking for the lack of a spur on the front tibia with a lens), as both species may occur together. However the **Idas Blue** is usually slightly larger and if such butterflies are found closely associated with *Chamaecytisus* it is most likely to be this species.

	Rila. (2925m Musala)	Pirin. (2914m Vihren)	Central Stara Planina. (2376m Botev)	W Stara Planina. (2169m Midzor)	E Stara Planina. (1181m Bulgarka)	Western Rhodopis. (2180m Beglika)	Central Rhodopis. (2191m Golyam Perelik)	Vitosha. (2290m Vitosha)	Osogovska Planina. (2251m Ruen)	Slavyanka. (2212m Gotsev Vrah)	Belasitsa. (2031m Radomir)	
Arran Brown	+	+	+	+	+	+	+	+	+	+	+	<i>Erebia ligea</i>
Large Ringlet	+	+	+	+		+	+	+	+	+	+	<i>Erebia euryale</i>
Bulgarian Ringlet	+	+	+	+								<i>Erebia orientalis</i>
Scotch Argus	+	+	+			+		+	+			<i>Erebia aethiops</i>
Woodland Ringlet	+	+	+	+	+	+	+	+	+	+	+	<i>Erebia medusa</i>
Almond-eyed Ringlet			+	+								<i>Erebia alberganus</i>
Silky Ringlet	+	+										<i>Erebia gorge</i>
Nicholl's Ringlet	+	+	+									<i>Erebia rhodopensis</i>
Common Brassy Ringlet	+	+	+									<i>Erebia cassioides</i>
Ottoman's Brassy Ringlet	+	+	+	+	+	+	+		+	+		<i>Erebia ottomana</i>
Water Ringlet	+	+	+					+	+			<i>Erebia pronoe</i>
Black Ringlet	+	+	+			+	+			+		<i>Erebia melas</i>
Bright-eyed Ringlet	+	+	+	+		+		+	+			<i>Erebia oeme</i>
Dewy Ringlet	+											<i>Erebia pandrose</i>

Table 1. Bulgarian mountains where different species of *Erebia*s (ringlets) can be found, also showing the height of the highest peak in each range.

3. Pirin Mountains

The Pirin Mountains lie immediately south of the Rila Mountains and extend nearly as far as the Greek border, separated from Mount Alibotush by the Pariliska Saddle which is 1170m at its highest point. The larger part of the mountain range is made from silicate rocks (granite) and of similar terrain to the Rila Mountains with its deeply cut steep sided mountains, with extensive areas of alpine grassland above the tree-line and its glaciated landscape of rocky peaks, screes and small lakes at altitudes above about 2200m. The remainder is marble limestone, including its highest peak Vihren (2914m). The land area is 2585 sq km, which is not a lot smaller than the area of the Rila Mountains. Although the area of high mountains is smaller than the Rila Mountains (the southern extension comprising lower mountains), it still boasts numerous peaks over 2000m and 40 over 2500m. Just over 403 sq km of Pirin lies within the Pirin National Park, 60% of which lies above 2000m. 55% of the area has a bedrock of granite, 45% of marble.

The Pirin Mountains can be divided into three distinct geographically distinct areas, separated by high 'saddles'. These are **3.1 North Pirin**, which occupies nearly three-quarters of the area, **3.2 Central Pirin**, which occupies just 7% of the area, and **3.3 South Pirin** which occupies the remaining 19% of the area. These areas are discussed separately below.

3.1 North Pirin. All but one of the peaks over 2000m occur in this part of Pirin. The Pirin National Park lies entirely within this area. The main vehicular access to the centre of North Pirin is from Bansko to the NE of the mountains. From here one can drive through moderate altitudes right into the centre of the mountains to the Banderitza (mountain) Hut. One can also access the high mountains from the east driving south from Dobrinishte and then by Gondala to the Bezbog mountain hut.

Not surprisingly, except for the **Dewy Ringlet**, it shares the same high altitude species as Rila. In addition the **Alpine Grizzled Skipper** has been rediscovered recently above 1900m in the marble part of North Pirin. At lower altitudes the meadows and ski runs host a large range of butterfly species. These include **Clouded Apollo**, **Balkan Copper**, **Scarce Copper**, **Blue Argus**, **Alcon Blue**, **Idas Blue**, **Meleager's Blue**, **Turquoise Blue**, many fritillaries, **False Heath Fritillary** (*Melitaea diamina*), **Tufted Marbled Skipper**, and **Chequered Skipper**,

3.2 Central Pirin. The highest point of Central Pirin is the marble peak of Orelek which stands at 2099m and is accessible from the south by a stony track from Popovo Livadi.

An interesting range of butterflies can be found in this area including **Apollo**, **Bosnian Blue**, **Geranium Argus**, **Escher's Blue** (*Polyommatus escheri*), **Higgin's Anomalous Blue**, **Turquoise Blue**, **Balkan Fritillary**, **Ottoman's Brassy Ringlet**, (*Erebia ottomana*), **Bright-eyed Ringlet**, **Woodland Ringlet** (*Erebia medusa*) and **Arran Brown** (*Erebia ligea*).

3.3 South Pirin Mountains

These mountains lie SW of the town of Gotse Delchev and are separated from Central Pirin to the north by the Popovo Livadi Saddle where the road numbered 198 runs. The highest peak of the area is Sveshtnik, which lies just SSW of Popovo Livadi and rises to 1973m. A significant part of these mountains are marble, including Sveshtnik. The mountains run southwards towards the Greek border and are separated from Slavyanka Mountain (which straddles the Greek border), by the Paril saddle. It is the southern part of the area which is most interesting for butterflies, and for sheer number of species on a visit this area is hard to beat in Bulgaria.

This is the only place in Bulgaria where the **Dil's Grayling** (*Pseudochazara orestes*) can be found. It occurs on hot rocky south-facing hillsides up to at least 900m. Other species that can be seen here include **Eastern Greenish Black-tip**, (though very local and rare and much easier to find over the border in Greece), **Grüner's Orange-tip**, **Bosnian Blue**, **Grecian anomalous Blue** and **Sandy Grizzled Skipper** (*Pyrgus cinarae*).

More common characteristic species include **Southern** and **Eastern Festoon**, **Clouded Apollo**, **Mountain Small White** (*Pieris ergane*), **Eastern Wood White** (*Leptidea duponcheli*) **Sloe Hairstreak** (*Satyrium acaciae*), **Ilex Hairstreak** (*Satyrium ilicis*) **White-letter Hairstreak** (*Satyrium w-album*), **Idas Blue**, **Escher's Blue** (*Polyommatus escheri*), **Southern White Admiral**, (*Limenitis reducta*), **Map Butterfly** (*Araschnia levana*), **Cardinal** (*Argynnis pandora*), **Anomalous Blue**, and **Hungarian Skipper**.

4. Alibotush (Slavyanka) Mountain

This marble limestone mountain lies in SW Bulgaria on the border with Greece, with the border passing through the high peaks of the mountain. On the Greek side it is called Mount Orvilos. Access to the peaks is

normally by foot, a steep and arduous climb. There are some tracks but these are inaccessible to most vehicles.

The mountain and its foothills hosts a rich butterfly fauna. Specialities at high altitudes include **Bosnian Blue** (*Plebejus dardanus*), which can be found above about 2000m, **Balkan Fritillary** and **Black Ringlet** (*Erebia melas*). The **Spinose Skipper** (*Spialia phlomidis*) is also recorded here.

5. Struma Valley (SW Bulgaria)

The River Struma begins in Vitosha Mountain just south of Sofia. However the section of the river valley we are concerned with here is from where the river flows through the Kresna Gorge southwards to the Bulgaria-Greece border. Here the river flows north to south between the Pirin Mountains to the east, and to the west the ridge of lower mountains that run along the Bulgaria-Macedonia border (highest point 1924m in Vlahina mountain). The river exits Bulgaria into Greece (and eventually flows into the Aegean Sea), with Alibotush Mountain on the southern border of Bulgaria to the east and Belasitsa Mountain to the west. This is a very rich area for butterflies and for a few species is the only part of Bulgaria where they are known to occur. These include **Powdered Brimstone**, **White-banded Grayling**, **Grass Jewel** (a small colony was found near the Greek border in 2012 - but not been seen since), **Inky Skipper** and **Mediterranean Skipper** and the very recently discovered **Pigmy Skipper**.

There are many places in the area that are good for butterflies both in the lower parts of the river valley and into the foothills of the surrounding mountains. There are populations of a number of species that have a restricted and generally southern distribution in Bulgaria, These include **Krueper's Small White**, **Small Bath White**, **Grecian Copper**, **Freyer's Grayling** and **Oriental Meadow Brown** (*Maniola lupina*). Other very local species include **Little Tiger Blue**, **Eastern Zephyr Blue** (*Plebejus pylaon*), **Southern Comma** (*Polygonia egea*), **Balkan Marbled White** and **Oriental Marbled Skipper** (*Carcharodus orientalis*).

A couple of areas should be mentioned that are particularly noteworthy for their butterflies, Kresna Gorge and Rupite.

Kresna Gorge

This spectacular gorge, or canyon, is 16 km in length and lies south of Blageovgrad between the towns of Krupnik and Kresna. It is rich in biodiversity but is currently under threat as there are plans to build a major motorway through the gorge which would undoubtedly have a serious impact on its wildlife. A wide range of interesting species are known to occur here including **Mountain Small White**, **Krueper's Small White**, **Grecian Copper**, **Little Tiger Blue**, **Hungarian Glider** (*Neptis rivularis*), **Common Glider** (*Neptis sappho*), **Balkan Marbled White**, **Oriental Meadow Brown** (*Hyponephele lupina*), **Southern Grayling**, **Delattin's Grayling** (*Hipparchia volgensis*), **Freyer's Grayling**, **Oriental Marbled Skipper**, **Persian Skipper**, **Sandy Grizzled Skipper** and **Inky Skipper** among many others.

Rupite

This includes the volcanic ridge and surrounding area north-east of the town of Rupite and includes the area known as Kozhukh Hill (snake paradise!). In the central part of the caldera of this extinct volcano there are hot springs open to the public. A good range of interesting butterflies can be found here including **Krueper's Small White**, **Grüner's Orange-tip**, **Powdered Brimstone** (the only site known for it in Bulgaria), **Little Tiger Blue**, **Iolas Blue** (*Iolana iolas*), **Freyer's Purple Emperor** (*Apatura metis*), **Freyer's Grayling**, **Oriental Marbled Skipper** and **Inky Skipper**.

6. Mesta Valley (SW Bulgaria)

The River Mesta flows south from the eastern Rila Mountains between the Rila and Pirin Mountains to the west and the Western Rhodopi Mountains to the east. The valley and mountain foothills provide rich habitat for many butterfly species. Near the river and its tributaries can be found, for example, **Large Copper**, (*Lycaena dispar*), **Eastern and Provençal Short-tailed Blue**, **Southern White Admiral**, **Freyers Purple Emperor** (*Apatura metis*) and **Balkan Marbled White**.

7. Western Rhodope Mountains (and includes 8 and 9 below)

The Rhodope mountains lie across the central southern part of Bulgaria and extend into northern Greece. The whole of the Rhodopi mountains (Eastern and Western Rhodopis) cover an area of 14,735 sq km, with 12,233 sq km (83%) falling in Bulgarian territory, a seventh of Bulgaria's land area. The Western Rhodopes make up two-thirds of area of the Rhodopes in Bulgaria. These have more than 10 peaks over 2000m, the highest being Golyam Perelik, which rises to 2191m. It is a land of bears and wolves!

The Western Rhodopis are heavily forested (about 70% in the central part) with mixed forests, but dominated by coniferous forests at higher altitudes, notably Norway Spruce (*Picea abies*). Amongst the forest there are meadows especially near towns and villages, around lakes and in rocky limestone areas.

Species characteristic of the open areas and forest margins in the Western Rhodopis include, **Scarce Copper**, **Balkan Copper** (in damper areas), **Mazarine Blue** (*Cyaniris semiargus*), **Amanda's Blue**, (*Polyommatus amanda*), **Nickerl's Fritillary**, (*Melitaea aurelia*) **Twin-spot Fritillary** (*Argynnis hecate*), **Woodland Ringlet**, **Large Ringlet** (*Erebia euryale*), **Arran Brown**, **Ottoman's Brassy Ringlet**, **Chestnut Heath**, **Eastern Large Heath**, **Large Grizzled Skipper** (*Pyrgus alveus*) and **Chequered Skipper**. **Black Hairstreak** (*Satyrium pruni*) and **Marsh Fritillary** (*Euphydryas aurina*) can also be found here locally. In damp meadows and areas around streams and lakes can be found colonies of the very local **Small Pearl-bordered Fritillary**.

8 & 9. The region is noted for its marble limestone areas and deep gorges, notably the spectacular Trigrad Gorge and surrounding area in the south (**8**), and in the NE the part of the range south and south-east of Asenovgrad including the Dobrostan Plateaux (**9**), and then extending WSW to Hvoyna in the Chepelpare valley and as far as Chudnite Mostove (Wonderful Bridges) and the village of Zabardo.

The marble limestone areas are particularly rich for butterfly species and provide some of the best places in Bulgaria to see a large number of species. Species characteristic of these areas include **Apollo**, **Mountain Small White**, **Berger's Clouded Yellow** (*Colias alfaciensis*), **Osiris Blue** (*Cupido osiris*), **Blue Argus**, **Idas Blue**, **Eastern Zephyr Blue**, **Mazarine Blue**, **Eastern Baton Blue** (*Pseudophilotes baton*), **Large Blue**, **Amanda's Blue**, **Turquoise Blue**, many fritillaries including **Cardinal**, **Dark Green Fritillary** (*Argynnis aglaja*), **Lesser-spotted Fritillary** and **Weaver's Fritillary** (*Boloria dia*), **Chestnut Heath**, **Eastern Large Heath** and **Chequered Skipper**. More local species include **Alcon Blue**, **Marsh Fritillary**, **Great Sooty Satyr** (*Satyryus ferula*) and **Safflower Skipper** (*Pyrgus carthami*).

This is also where the rare and very local **Kolev's Anomalous Blue** can be found. It looks very similar to the much more widespread **Ripart's Anomalous Blue** (*Polyommatus ripartii*).

10. Bessapara hills

These rolling quite sparsely vegetated limestone hills rise to over 500m and lie just north of the Western Rhodopi Mountains west of Plovdiv. Many butterfly species can be found here. Both **Swallowtail** (*Papilio machaon*) and **Scarce Swallowtail** (*Iphiclides podalirius*) may be found hilltopping in numbers. Notable species include **Eastern Wood White**, **Berger's Clouded Yellow**, **Eastern Pale Clouded Yellow** (*Colias erate*) (one of the few places this species is still known to breed in Bulgaria, it having declined greatly over the past couple of decades), **Blue-spot Hairstreak** (*Satyrium spini*), (common here and associated with Christ's Thorn), **Little Tiger Blue**, **Eastern Baton Blue**, **Osiris Blue**, **Chapman's Blue** (*Polyommatus thersites*), **Hermit** (*Chazara briseis*) (in good numbers) and **Hungarian Skipper** (*Spialia orbifer*).

11. Eastern Rhodope Mountains & Arda Valley (S Bulgaria)

The Eastern Rhodope mountains cover about a third of the area of the whole Rhodope Mountain range that falls within Bulgaria's borders, and are different in character to the Western Rhodopi Mountains. For a start they are somewhat lower, rising to not much more than 1000m but with an average of just 230m (the average height of the whole Rhodope range is 785m). A substantial part of the area is of volcanic origin and it has many rocky hillsides and craggy peaks and some interesting volcanic features. There are a few limestone areas. A major feature is the River Arda which begins in the Western Rhodopes and flows eastwards through these mountains. The environs of the river are particularly rich in butterflies. Part of the Eastern Rhodopes have been designated as a Re-wilding area set apart to be restored to as near a natural state as possible (one of 10 such areas in Europe). Here Grey Wolves, European Jackel and Brown Bear are resident and European Bison and 'Wild' Horses are being re-introduced. It is an excellent area for raptors, including three species of vulture. The scenery in places is stunning, for example in the area around Madzharovo.

Characteristic butterfly species are numerous and include **Southern Festoon**, **Eastern Festoon**, **Eastern Wood White**, **Southern Small White** (*Pieris manni*), **Eastern Bath White**, (*Pontia edusa*), **Eastern Dappled White** (*Euchloe ausonia*), **Purple-shot Copper** (*Lycaena alciphron*), **Sloe Hairstreak** (*Satyrium acaciae*), **Ilex Hairstreak** (*Satyrium ilicis*), **Green-underside Blue**, (*Glaucopteryx alexis*), **Freyer's Purple Emperor**, **Southern White Admiral**, **Camberwell Beauty** (*Nymphalis antiopa*), **Large Tortoiseshell** (*Nymphalis polychloros*), many fritillaries (including **Cardinal**, **Niobe Fritillary** (*Argynnis niobe*), **Marbled Fritillary**, **Lesser Spotted Fritillary**, **Lattice Brown** (*Kirinia roxelana*), **Yellow-banded Skipper** (*Pyrgus sidae*), **Oberthür's Grizzled Skipper** and **Hungarian Skipper**.

More local or rare species include **Small Bath White** (associated with hot rocky valleys of the Arda river and its tributaries), **Krueper's Small White** (on steep sparsely vegetated rocky cliffs), **Grecian Copper** (in hottest valleys), **Little Tiger Blue** (in hot dry valleys and hillsides where its foodplant Christ's Thorn grows), **Escher's Blue**, **Balkan Marbled White**, **Oriental Meadow Brown** (very local), **Southern Grayling**, **Russian Heath** (*Coenonympha leander*), **Oriental Marbled Skipper** and **Sandy Grizzled Skipper**.

12 & 13. Kyustendil Province including Osogovska Planina (Also known as the Osogovo) and Zemen Gorge

As in most parts of Bulgaria there are numerous places that are good for seeing butterflies in this area. Here just two of these areas are highlighted.

12. The Osogovska Planina are mountains that straddle the Bulgaria-Macedonian border on the central western border of Bulgaria. The highest peak is Ruen at 2251m. This is one of the places where the very local Balkan endemic the **Balkan Clouded Yellow** can be seen in areas near the tree line where its foodplant *Chamaecytisus absinthioides* grows.

Species characteristic of these mountains below the tree-line are typical of butterflies of other Bulgarian mountains and include **Scarce Copper**, **Balkan Copper**, **Idas Blue**, **Mazarine Blue**, **Eros Blue**, **Purple Emperor**, (*Apatura iris*), **Cardinal**, **Dark Green Fritillary**, **Pearl-bordered Fritillary**, **Heath Fritillary** (*Melitaea athalia*), **Large Ringlet**, **Woodland Ringlet**, **Scotch Argus** (*Erebia aethiops*), **Bright-eyed Ringlet**, **Ottoman's Brassy Ringlet**, **Eastern Large Heath**, **Chestnut Heath**. and **Olive Skipper** (*Pyrgus serratulae*). Above the tree-line butterflies are numerous but species are few. In the summer **Ottoman's Brassy Ringlet** and **Bright-eyed Ringlet** can be particularly common.

13. Zemen Gorge (and neighbouring hills and valleys).

The Zemen gorge is a long limestone gorge formed by the Struma river. It runs from Zemen just over the border of the adjacent Province of Pernik to the north to the village of Razhdavitsa. The gorge itself is not accessible by road, but a railway line runs along its entire length. However the whole limestone area is rich in butterfly species and some valleys and hillsides can be accessed from the villages and the roads that run through the area. I have recorded over 80 species in a day here in July.

Among the many species that can be found here are included **Eastern Bath White**, **Berger's Clouded Yellow**, **Purple-shot Copper**, **Revedin's Blue** (*Plebejus argyrognomon*), **Chapman's Blue**, **Meleager's Blue**, **Alcon Blue**, **Iolas Blue**, **Large Blue** (*Phengaris arion*), **Osiris Blue**, **Common Glider**, **Balkan Marbled White**, **Lesser Lattice Brown** (*Kirinia climene*), **Persian Skipper**, **Yellow-banded Skipper** and **Sandy Grizzled Skipper**.

14 – 16. Stara Planina

This chain of mountains, also called the Balkan Mountains, is 560km in length with a land area within Bulgaria of 11,600 sq km (10% of Bulgaria's land area). They stretch from the Serbian-Bulgarian border in the north-west, running SE down that border (mostly within Serbia) before cutting right across Bulgaria ending at the Black Sea in the east, with the tallest mountains in the central section and the lowest mountains in the east. It is readily divisible into three sections, the Western Stara Planina (highest peak Kom 2016m), the The Central Stara Planina (highest peak Botev 2376m) and the Eastern Stara Planina (highest peak

14. Western Stara Planina and NW Bulgaria

This section runs 190m from Vrashka Chuka on the Bulgaria Serbia border to the Botevgrad or Arabakonak Pass. It's highest peak is Mizdor (2169m) which is right on the Bulgaria-Serbia border.

At higher altitudes a good range of species can be found. **Balkan Copper**, **Mazarine Blue**, **Eros Blue**. At lower to moderate altitudes and among the surrounding hills and valleys. Both the **Common Glider** and the **Hungarian**. The former can be quite common. **False Comma**, **Large Blue** (*Phengaris arion*), **Scarce Copper**, **Lesser Marbled Fritillary** (*Brenthis ino*), **Freyer's Fritillary** (*Melitaea arduinna*), **Balkan Marbled White**, **Almond-eyed Ringlet** and **Spinose Skipper**.

Iskar Gorge (Tserovo to Gara Lataknik to Zverino)

This long and beautiful gorge passes through the Western Stara Planina. It lies north of Sofia, connecting Sofia, by road that follows its length, with the town of Mezdra at its far end, and so is easily accessible. It follows the River Iskar (that eventually flows into the Danube on Bulgaria's northern border). The section between the towns of Tserovo through Gara Lataknik to Zverino marks the northern boundary of the Iskar Gorge PBA. The river passes through areas of limestone with steep rocky cliffs and other karst features. Many species of

butterfly occur there including **Apollo**, **Clouded Apollo**, **Large Copper**, **Chequered Blue** (*Scolitantides orion*), **Common Glider** and **Twin-spot Fritillary** (*Brenthis hecate*).

15. Central Stara Planina (Central Bulgaria)

The Central Stara Planina runs 207 km from the Botevgrad or Arabakonak Pass in the west to the Vratnik Pass in the east. This is the highest part of the range and the highest Peak is Botev (2376m) just NE of Karlovo.

In small damp valleys near the highest peaks can be found the **Bog Fritillary** (*Boloria eunomia*), the only area it has been recorded in Bulgaria so far. However it also occurs in the Western Stara Planina in Serbia, and it seems likely it will also be found here in Bulgaria. It is also possible that the **Violet Copper** will be found here. The high peaks are difficult to access and have not been well studied.

Many other species can be found here including 12 of the 14 species of ringlet (*Erebia* spp.) that occur in Bulgaria including the **Almond-eyed Ringlet**. Other species at lower altitudes include **Balkan Copper**, **Scarce Copper**, **Alcon Blue**, **Poplar Admiral**, **Chestnut Heath** (*Coenonympha glycerion*) and **Eastern Large Heath**.

16. Eastern Stara Planina

This lower part of the mountain range runs 160 km from Vratnik Pass NW of Sliven in the west to Cape Emine by the Black Sea in the east. Its highest peak is Balgarka (1181 m) just north of Sliven. Of particular interest is the Sinite Kamani Nature Park.

Sinite Kamani (Blue Stones) Nature Park

This well studied area of steep jagged limestone rising to 684m, comprises part of Sliven Mountain just north of Sliven. It is covered in part with deciduous forest interspersed with bare rock. It occupies an area of 114 sq km. Part of it can be accessed by road. Butterflies recorded here include **Apollo**, **Clouded Apollo**, **Mountain Small White**, **Small Bath White**, **Large Copper**, **Eastern Baton Blue**, **Alcon Blue** (*Phengaris alcon*), **Eastern Zephyr Blue**, **Grecian Anomalous Blue**, **Poplar Admiral**, **Nickerl's Fritillary**, **Assmann's Fritillary** (*Melitaea britomartis*) and **Sandy Grizzled Skipper** among many others (over 150 butterfly species recorded).

Among many other species found in this part of the Stara Planina include **Blue Argus**, **Common Glider**, **Lesser Marbled Fritillary** and **Russian Heath**. The **Tessellated Skipper** (*Muschampia tessellum*) was rediscovered in Bulgaria in the Eastern Stara Planina in 2003.

17. Strandzha and area (SE Bulgaria)

This area is in the extreme south-east of Bulgaria bordered by the Black Sea to the east and Turkey to the south with the city of Bourgas to the north. Strandzha is a low mountain massif that straddles the Bulgaria-Turkish border with forested hills rising to over 1000m in Turkey, but in Bulgaria to just over 700m near the Turkish border just west of the small town of Malko Tarnovo.

The area has a sparse human population and is largely untouched by human development, with only small towns and villages. There are some seaside resorts along the Black Sea coast and some of these are being developed for tourism. However the largest of these small towns, Tzarevo had a population of less than 6000 people in 2009. The biggest of the inland towns is Malko Tarnovo (mentioned above) had a population of about 2500 in 2009.

The hills are drained by a number small rivers and their tributaries which on the Bulgarian side drain eastwards into the Black Sea. The biggest of these are in the south the of the area, the Rivers Veleko and Rezovska. The latter river running along the southern border with Turkey.

The area is largely deciduous forest with relatively small areas under cultivation. The forests are largely oak (*Quercus polycarpa* and *Q. frainetto*) and beech (*Fagus orientalis*) forest.

Open grassland areas and glades are relatively few and far between but where these exist they may be teaming with butterflies, such as many species of fritillary. Among these fritillaries may be **Assmann's Fritillary**, for which the area is noted. **Nickerl's Fritillary** does not occur here avoiding confusion with that very similar species. Along the rivers where White Willows occur may be found **Freyer's Purple Emperor** (*Apatura metis*). This is the best place in Bulgaria to find the **Grecian Copper**. It occurs throughout the region all down the coast and well inland and can be common. The **Large Chequered Skipper** (*Heteropterus morpheus*) is very rare and localised in Bulgaria but it is known from several sites in this area including some of the wetland near Primorsko and by Sinemorets near the Turkish border.

18. Danunian Plain in NE Bulgaria

The far NE corner of Bulgaria is mostly arable land with little semi-natural habitat except along the Black Sea coast. However only a little further west the land begins to rise a little and the area becomes hilly and dissected by numerous mostly small and dry river valleys cutting through the sedimentary and alluvial deposits. These valleys have semi-natural grassland and woodland on their sides and in some cases are steep and rocky. There is a good scattering of patches of woodland throughout the area. All these provide habitat for butterflies. The area encompasses four Prime Butterfly Areas, the Suha Reka, Ludogorie, Lomovete and Ostrovche.

NE Bulgaria is an important stronghold for the **Scarce Fritillary** (*Euphydryas maturna*) which occurs over a wide area of this part of Bulgaria. The PBA Suha Reka, NNW of Dobrich, is a particularly good place to see this butterfly. Other species that can be seen here (among many commoner butterflies) include **Clouded Apollo**, **Large Copper**, **Eastern Baton Blue**, **Chequered Blue**, **Alcon Blue**, **Large Blue**, **Common Glider**, **Twin-spot Fritillary** and **Marsh Fritillary**.

APPENDICES I to VI On the following pages are 211 of Bulgaria's 216 butterfly species divided into categories as indicated for each appendix. I have excluded the rare immigrant **Cleopatra**, and the four species that may be extinct in Bulgaria.

The butterflies are divided into categories based on the information on Zdravko Kolev's "Butterflies of Bulgaria" website (www.butterfliesofbulgaria.com), Stanislav Abadjiev's "Atlas of the Butterflies of Bulgaria" and my own observations.

On his website Zdravko Kolev has used IUCN Red List criteria and applied these locally to each species that occurs in Bulgaria. These are shown here under the column entitled "Kolev" (<http://www.iucnredlist.org/technical-documents/categories-and-criteria/2001-categories-criteria>). The IUCN based categories used here are: LC = Least Concern, NT = Nearly Threatened, DD = Data Deficient, VU = Vulnerable, EN = Endangered.

I have used a subjective scale to denote the frequency I have encountered each species. The scale is R = Rare, S = Scarce, O = Occasional, F = Frequent, C = Common. These are shown under the column entitled "Freq. (i.e. frequency of encounter). Some I have so far not knowingly seen, these are indicated by "-".

APPENDIX I. Generally widespread and often common species that may be encountered throughout most of Bulgaria at least within their altitudinal range and preferred habitat. Some species (e.g. Clouded Yellow) may be encountered just about anywhere. Others (e.g. Lattice Brown) are widespread in the south but more local north of the Stara Planina.

	SPECIES - vernacular	SPECIES - scientific	Kolev	Freq.
1	Swallowtail	<i>Papilio machaon</i>	LC	F
2	Scarce Swallowtail	<i>Iphiclides podalirius</i>	LC	C
3	Black-veined White	<i>Aporia crataegi</i>	LC	C
4	Large White	<i>Pieris brassicae</i>	LC	F
5	Small White	<i>Pieris rapae</i>	LC	C
6	Green-veined White	<i>Pieris napi</i>	LC	C
7	Eastern Bath White	<i>Pontia edusa</i>	LC	C
8	Eastern Dappled White	<i>Euchloe ausonia</i>	LC	O
9	Orange-tip	<i>Anthocharis cardamines</i>	LC	O
10	Clouded Yellow	<i>Colias croceus</i>	LC	C
11	Brimstone	<i>Gonepteryx rhamni</i>	LC	F
12	Wood White	<i>Leptidea sinapis</i>	LC	F
13	Purple Hairstreak	<i>Favonius quercus</i>	LC	O
14	Sloe Hairstreak	<i>Satyrium acaciae</i>	LC	C
15	Ilex Hairstreak	<i>Satyrium ilicis</i>	LC	F
16	Blue-spot Hairstreak	<i>Satyrium spini</i>	LC	O
17	White-letter Hairstreak	<i>Satyrium w-album</i>	LC	O
18	Green Hairstreak	<i>Callophrys rubi</i>	LC	C
19	Small Copper	<i>Lycaena phlaeas</i>	LC	C
20	Sooty Copper	<i>Lycaena tityrus</i>	LC	C
21	Purple-shot Copper	<i>Lycaena alciphron</i>	LC	F
22	Lesser Fiery Copper	<i>Lycaena thersamon</i>	LC	O
23	Long-tailed Blue	<i>Lampides boeticus</i>	LC	S
24	Lang's Short-tailed Blue	<i>Leptotes pirithous</i>	LC	O
25	Short-tailed Blue	<i>Cupido argiades</i>	LC	O
26	Holly Blue	<i>Celastrina argiolus</i>	LC	F
27	Green-underside blue	<i>Glaucopsyche alexis</i>	LC	F
28	Silver-studded Blue	<i>Plebejus argus</i>	LC	C
29	Brown Argus	<i>Aricia agestis</i>	LC	C
30	Meleager's Blue	<i>Polyommatus daphnis</i>	LC	F
31	Adonis Blue	<i>Polyommatus bellargus</i>	LC	F
32	Common Blue	<i>Polyommatus</i>	LC	C
33	Camberwell Beauty	<i>Nymphalis antiopa</i>	LC	O
34	Large Tortoiseshell	<i>Nymphalis polychloros</i>	LC	O
35	Peacock	<i>Aglais io</i>	LC	C
36	Small Tortoiseshell	<i>Aglais urticae</i>	LC	F
37	Red Admiral	<i>Vanessa atalanta</i>	LC	C
38	Painted Lady	<i>Vanessa cardui</i>	LC	C
39	Comma	<i>Polygonia c-album</i>	LC	C
40	Map Butterfly	<i>Araschnia levana</i>	LC	O
41	Cardinal	<i>Argynnis pandora</i>	LC	F
42	Silver-washed fritillary	<i>Argynnis paphia</i>	LC	C
43	Niobe Fritillary	<i>Argynnis niobe</i>	LC	F
44	Queen of Spain Fritillary	<i>Issoria lathonia</i>	LC	C
45	Marbled Fritillary	<i>Brenthis daphne</i>	LC	C
46	Weaver's Fritillary	<i>Boloria dia</i>	LC	F
47	Glanville Fritillary	<i>Melitaea cinxia</i>	LC	C
48	Knapweed Fritillary	<i>Melitaea phoebe</i>	LC	C
49	Spotted Fritillary	<i>Melitaea didyma</i>	LC	C
50	Lesser Spotted Fritillary	<i>Melitaea trivia</i>	LC	C
51	Heath Fritillary	<i>Melitaea athalia</i>	LC	C

52	Marbled White	<i>Melanargia galathea</i>	LC	C
53	Grayling	<i>Hipparchia semele</i>	LC	F?
54	Tree Grayling	<i>Hipparchia statilinus</i>	LC	-
55	Great Banded Grayling	<i>Brintesia circe</i>	LC	C
56	Meadow Brown	<i>Maniola jurtina</i>	LC	C
57	Ringlet	<i>Aphantopus hyperantus</i>	LC	F
58	Gatekeeper	<i>Pyronia tithonus</i>	LC	O
59	Small Heath	<i>Coenonympha pamphilus</i>	LC	C
60	Pearly Heath	<i>Coenonympha arcania</i>	LC	F
61	Speckled Wood	<i>Parage aegeria</i>	LC	F
62	Wall Brown	<i>Lasiommata megera</i>	LC	F
63	Large Wall Brown	<i>Lasiommata maera</i>	LC	F
64	Grizzled Skipper	<i>Pyrgus malvae</i>	LC	C
65	Orbed Red-underwing Skipper	<i>Spialia orbifer</i>	LC	C
66	Mallow Skipper	<i>Carcharodus alceae</i>	LC	C
67	Dingy Skipper	<i>Erynnis tages</i>	LC	C
68	Essex Skipper	<i>Thymelicus lineola</i>	LC	C
69	Small Skipper	<i>Thymelicus sylvestris</i>	LC	C
70	Large Skipper	<i>Ochlodes venata</i>	LC	C

APPENDIX II. Species widespread but local within their distribution, but excluding species that occur at least predominantly in mountains. These follow in the next two tables (APPENDIX III & IV).

	SPECIES - vernacular	SPECIES - scientific	Kolev	Freq.
1	Eastern Festoon	<i>Zerynthia cerisy</i>	NT	F
2	Southern Festoon	<i>Zerynthia polyxena</i>	NT	F
3	Southern Small White	<i>Pieris mannii</i>	LC	F
4	Berger's Clouded Yellow	<i>Colias alfacariensis</i>	LC	F
5	Eastern Pale Clouded Yellow	<i>Colias erate</i>	LC	R
6	Cryptic Wood White	<i>Leptidea juvernica</i>	DD	?
7	Eastern Wood White	<i>Leptidea duponcheli</i>	LC	F
8	Brown Hairstreak	<i>Thecla betulae</i>	DD	O
9	Large Copper	<i>Lycaena dispar</i>	NT	F
10	Eastern Short-tailed Blue	<i>Cupido decoloratus</i>	NT	O
11	Provencal Short-tailed Blue	<i>Cupido alcetas</i>	NT	O
12	Small Blue	<i>Cupido minimus</i>	LC	F
13	Large blue	<i>Phengaris arion</i>	LC	F
14	Iolas Blue	<i>Iolana iolas</i>	DD	S
15	Chequered Blue	<i>Scolitantides orion</i>	LC	O
16	Eastern Baton Blue	<i>Pseudophilotes vicrama</i>	LC	F
17	Reverdin's Blue	<i>Plebejus argyrognomon</i>	LC	F
18	Blue Argus	<i>Aricia anteros</i>	LC	O
19	Chapman's Blue	<i>Polyommatus thersites</i>	LC	F
20	Chalkhill Blue	<i>Polyommatus coridon</i>	LC	S
21	Duke of Burgundy	<i>Hamearis lucina</i>	LC	F
22	Nettle-tree Butterfly	<i>Libythea celtis</i>	LC	F
23	Freyer's Purple Emperor	<i>Apatura metis</i>	NT	F
24	Lesser Purple Emperor	<i>Apatura ilia</i>	LC	S
25	Southern White Admiral	<i>Limenitis reducta</i>	LC	F
26	White Admiral	<i>Limenitis camilla</i>	NT	S
27	Yellow-legged Tortoiseshell	<i>Nymphalis xanthomelas</i>	DD	R
28	Dark Green Fritillary	<i>Argynnis aglaja</i>	LC	F
29	High Brown Fritillary	<i>Argynnis adippe</i>	LC	O
30	Twin-spot Fritillary	<i>Brenthis hecate</i>	NT	F
31	Eastern Knapweed Fritillary	<i>Melitaea telona</i>	DD	O
32	Nickerl's Fritillary	<i>Melitaea aurelia</i>	LC	O
33	Marsh Fritillary	<i>Euphydryas aurinia</i>	VU	O
34	Eastern Rock Grayling	<i>Hipparchia syriaca</i>	LC	O
35	Woodland Grayling	<i>Hipparchia fagi</i>	LC	S
36	The Hermit	<i>Chazara briseis</i>	LC	S
37	Great Soory Satyr	<i>Satyrus feula</i>	VU	O
38	Dryad	<i>Minois dryas</i>	LC	O
39	False Grayling	<i>Arethusana arethusia</i>	LC	S
40	Dusky Meadow Brown	<i>Hyponphele lycaon</i>	LC	S
41	Russian Heath	<i>Coenonympha leander</i>	NT	S
42	Lattice Brown	<i>Kirinia roxelana</i>	LC	F
43	Oberthür's Grizzled Skipper	<i>Pyrgus armoricanus</i>	LC	F
44	Olive Skipper	<i>Pyrgus serratulae</i>	LC	O
45	Yellow-banded Skipper	<i>Pyrgus sidae</i>	LC	F
46	Marbled Skipper	<i>Carcharodus lavatherae</i>	LC	S
47	Tufted Marbled Skipper	<i>Carcharodus flocciferus</i>	NT	F
48	Lulworth Skipper	<i>Thymelicus acteon</i>	LC	F
49	Silver-spotted Skipper	<i>Hesperia comma</i>	LC	R

APPENDIX III. Species that are widespread, but only (or mainly) occur, in the mountains. Some occur at lower altitudes north of the Stara Planina.

	SPECIES - vernacular	SPECIES - scientific	Kolev	Freq.
1	Clouded Apollo	<i>Parnassius mnemosyne</i>	NT	O
2	Scarce Copper	<i>Lycaena virgaurea</i>	LC	F
3	Balkan Copper	<i>Lycaena candens</i>	NT	F
4	Mazarine Blue	<i>Cyaniris semiargus</i>	LC	C
5	Eros Blue	<i>Polyommatus eros</i> spp. <i>eroides</i>	LC	C
6	Purple Emperor	<i>Apatura iris</i>	LC	O
7	Pearl-bordered Fritillary	<i>Boloria euphrosyne</i>	LC	F
8	Arran Brown	<i>Erebia ligea</i>	LC	O
9	Large Ringlet	<i>Erebia euryale</i>	LC	F
10	Scotch Argus	<i>Erebia aethiops</i>	LC	R
11	Woodland Ringlet	<i>Erebia medusa</i>	LC	C
12	Ottoman's Brassy Ringlet	<i>Erebia ottomana</i>	NT	C
13	Eastern Large Heath	<i>Coenonympha rhodopensis</i>	NT	C
14	Large Grizzled Skipper	<i>Pyrgus alveus</i>	LC	O
15	Chequered Skipper	<i>Carterocephalus palaemon</i>	DD	F

APPENDIX IV. Species that are widespread but local (but only, or mainly, occur), in the mountains. Some occur at lower altitudes north of the Stara Planina.

	SPECIES - vernacular	SPECIES - scientific	Kolev	Freq.
1	Apollo	<i>Parnassius apollo</i>	NT	O
2	Mountain Small White	<i>Pieris ergane</i>	NT	F
3	Black Hairstreak	<i>Satyrrium pruni</i>	DD	O
4	Alcon Blue	<i>Phengaris alcon</i>	NT	O
5	Eastern Zephyr Blue	<i>Plebejus pylaon</i>	NT	O
6	Idas Blue	<i>Plebejus idas</i> (ssp. <i>baldur</i>)	NT	F
7	Geranium Argus	<i>Aricia eumedon</i>	NT	O
8	Mountain Argus	<i>Aricia artaxerxes</i>	NT	O
9	Amanda's Blue	<i>Polyommatus amandus</i>	LC	F
10	Ripart's Anomalous Blue	<i>Polyommatus ripartii</i>	NT	O
11	Turquoise Blue	<i>Polyommatus dorylas</i>	NT	O
12	Poplar Admiral	<i>Limenitis populi</i>	NT	O
13	Hungarian Glider	<i>Neptis rivularis</i>	NT	O
14	Chestnut Heath	<i>Coenonympha glycerion</i>	LC	F
15	Northern Wall Brown	<i>Lasiommata petropolitana</i>	LC	O

APPENDIX V. Mountain species with a rather restricted distribution.

	SPECIES - vernacular	SPECIES - scientific	Kolev	Freq.
1	Balkan Clouded Yellow	<i>Colias caucasica</i>	VU	R
2	Violet Copper	<i>Lycaena helle</i>	EN	-
3	Bosnian Blue	<i>Plebejus dardanus</i>	VU	R
4	Escher's Blue	<i>Polyommatus escheri</i> (ssp. <i>dalmaticus</i>)	VU	S
5	Shepherd's Fritillary	<i>Boloria pales</i>	VU	O
6	Balkan Fritillary	<i>Boloria graeca</i>	VU	O
7	Bog Fritillary	<i>Proclossiana eunomia</i>	VU	-
8	Small Pearl-bordered Fritillary	<i>Boloria selene</i>	VU	S
9	Cynthia's Fritillary	<i>Euphydryas cynthia</i>	VU	S

APPENDIX VI. Other species with a generally to very restricted distribution.

	SPECIES - vernacular	SPECIES - scientific	Kolev	Freq.	Comment
1	Krueper's Small White	<i>Pieris krueperi</i>	NT	O	Steep hot rocky slopes - S
2	Small Bath White	<i>Pontia chloridice</i>	VU	S	Very restricted
3	Eastern Greenish Black-tip	<i>Euchloe penia</i>	VU	-	Very restricted & rare
4	Grüner's Orange-tip	<i>Anthocharis gruneri</i>	VU	S	Very restricted
5	Pale Clouded Yellow	<i>Colias hyale</i>	DD	-	
6	Powdered Brimstone	<i>Gonepteryx farinosa</i>	VU	-	One known site
7	Grecian Copper	<i>Lycaena ottomana</i>	VU	O	
8	Geranium Bronze	<i>Cacyreus marshalli</i>	-	-	One known site
9	Little Tiger Blue	<i>Tarucus balkanicus</i>	DD	O	
10	Osiris Blue	<i>Cupido osiris</i>	NT	O	
11	Dusky Large Blue	<i>Phengaris nausithous</i>	EN	-	Very restricted
12	Grass Jewel	<i>Chilades trochylus</i>	-	-	One known site
13	Anomalous Blue	<i>Polyommatus admetus</i>	NT	O	
14	Grecian Anomalous Blue	<i>Polyommatus aroaniensis</i>	VU	R	Very restricted
15	Higgin's Anomalous Blue	<i>Poly. nephohiptameros</i>	VU	R	Very restricted
16	Kolev's Anomalous Blue	<i>Polyommatus orphicus</i>	VU	R	Very restricted
17	Common Glider	<i>Neptis sappho</i>	NT	O	Not east
18	False Comma	<i>Nymphalis vaualbum</i>	DD	-	Very rare
19	Southern Comma	<i>Polygonia egea</i>	VU	R	Scattered S, rare
20	Lesser Marbled Fritillary	<i>Brenthis ino</i>	DD	O	Scattered, but esp. St Pl.
21	Freyer's Fritillary	<i>Melitaea arduinna</i>	VU	S	Esp NW Bulgaria
22	Assmann's Fritillary	<i>Melitaea britomartis</i>	DD	S	Strandzha, elsewhere ?
23	False Heath Fritillary	<i>Melitaea diamina</i>	VU	S	Scattered, rare
24	Scarce Fritillary	<i>Euphydryas maturna</i>	DD	-	NE Bulgaria
25	Balkan Marbled White	<i>Melanargis larissa</i>	NT	O	
26	Southern Grayling	<i>Hipparchia senthes</i>	DD	?	
27	Delattin's Grayling	<i>Hipparchia volgensis</i>	DD	?	
28	Freyer's Grayling	<i>Hipparchia fatua</i>	VU	R	
29	Dil's Grayling	<i>Pseudochazara orestes</i>	VU	-	Very restricted & rare
30	White-banded Grayling	<i>Pseudochazara anthelea</i>	VU	-	Struma SW Bulgaria
31	Bulgarian Ringlet	<i>Erebia orientalis</i>	VU	S	
32	Almond-eyed Ringlet	<i>Erebia alberganus</i>	VU	O	W & C Stara Planina
33	Silky Ringlet	<i>Erebia gorge</i>	VU	-	Rila & Pirin >2500m
34	Nicholl's Ringlet	<i>Erebia rhodopensis</i>	VU	O	Rila/Pirin/C St Pl >1900m
35	Common Brassy Ringlet	<i>Erebia cassioides</i>	VU	R	Rila/Pirin/C St Pl >1800m
36	Water Ringlet	<i>Erebia pronoe</i>	VU	R	
37	Black Ringlet	<i>Erebia melas</i>	VU	S	Dry rocky slopes & screes
38	Bright-eyed Ringlet	<i>Erebia oeme</i>	VU	F	
39	Dewy Ringlet	<i>Erebia pandrose</i>	VU	O	Rila Mtns. only, >2200m
40	Oriental Meadow Brown	<i>Hyponephele lupina</i>	DD	R	
41	Lesser Lattice Brown	<i>Kirinia climene</i>	DD	R	
42	Sandy Grizzled Skipper	<i>Pyrgus cinarae</i>	NT	O	
43	Safflower Skipper	<i>Pyrgus carthami</i>	DD	O	
44	Alpine Grizzled Skipper	<i>Pyrgus andromedae</i>	VU	-	Pirin (marble part) >1900m
45	Dusky Grizzled Skipper	<i>Pyrgus cacaliae</i>	VU	O	Rila & N Pirin >1800m
46	Persian Skipper	<i>Spialia phlomidis</i>	VU	R	
47	Tessellated Skipper	<i>Muschampia tessellum</i>	EN	-	
48	Spinose Skipper	<i>Muschampia cribrellum</i>	VU	-	
49	Oriental Marbled Skipper	<i>Carcharodus orientalis</i>	DD	O	
50	Inky Skipper	<i>Erynnis marloyi</i>	VU	R	Struma SW Bulgaria
51	Large Chequered Skipper	<i>Heteropterus morpheus</i>	EN	-	Strandzha & N Bulgaria
52	Mediterranean Skipper	<i>Gegenes nostrodamus</i>	VU	R	Struma SW Bulgaria
53	Pigmy Skipper	<i>Gegenes pumilio</i>	-	-	One site