# The butterflies of Mount Parnon

G. C. Bozano & N. Gavalas



MANAGEMENT BODY PARNON MOUSTOS MAINALON & MONEMVASIA

#### © 2020: Gian Cristoforo Bozano & Nikos Gavalas

(rights allotted to the Management Body of Parnon, Moustos, Mainalon & Monemvasia, regarding this edition).



MANAGEMENT BODY PARNON, MOUSTOS MAINALON & MONEMVASIA Astros Arkadias, 22001 Tel.: (+30) 27550 22021, Fax: (+30) 2755022806 Email: info@fdparnonas.gr • http://www.fdparnonas.gr

The present publication was undertaken by the Management Body of Parnon, Moustos, Mainalon & Monemvasia within the project "Production and design of informationawareness material" for the implementation of the Act: "Supporting environmental awareness actions of the Management Body. The case of the Parnon - Maleas Biosphere Reserve" of the Management Body of Parnon, Moustos, Mainalon & Monemvasia beneficiary of the Program "Rural Development Program for Greece 2014-2020" - Measure 19, Submeasure 19.2, Sub-Action 19.2.4.5, OPSAA 0011021049, of the Special Management Service O.P. of Peloponnisos Region.

Texts: Gian Cristoforo Bozano & Nikos Gavalas Cover illustration: Laura Arcelli & Francesca Bozano

All rights reserved. The republication or reproduction of this material as a whole or parts thereof in any manner is forbidden, as well as its translation, adaptation or exploitation in any way, according to the provisions of law 2121/1993 and the International Convention of Bern-Paris, as ratified with law 100/1975. The reproduction of the typesetting, layout, cover and all the aesthetic appearance of this material in general, by any means, is strictly prohibited.

ISBN: 978-618-85093-1-3

The full bibliographical reference for the present publication is as follows: Bozano G. C. & Gavalas N. 2020: The butterflies of Mount Parnon. Management Body of Parnon, Moustos, Mainalon & Monemvasia, Astros, Arkadia.



Published by: GEOMETRIA IKE Aghios Ioannis, 202 00 Kiato, Korinthia, Greece Tel.: (+30) 27420. 29333 Fax: (+30) 27420. 25986 www.geometria.com.gr • e-mail: info@geometria.com.gr G. C. Bozano & N. Gavalas

## The butterflies of Mount Parnon

Astros 2020



MANAGEMENT BODY PARNON MOUSTOS MAINALON & MONEMVASIA

#### TABLE OF CONTENTS

Introductory note	5
Management Body of Parnon, Moustos, Mainalon & Monemva	isia 6
Protected areas	7
Man and nature together	10
Foreword by the first author	11
Map of the area	12
What is a butterfly?	14
The life of a butterfly	15
Which butterfly is this?	17
The butterflies of Parnon	19
Family Papilionidae	20
Family Pieriidae	32
Family Nymphalidae	58
Family Lycaenidae	
Family Hesperiidae	154
Concise bibliography	173
Index of species	174

#### INTRODUCTORY NOTE

Mount Parnon range that extends along the south-eastern Peloponnisos, together with its coastal areas, has significant natural characteristics, as the result of the complex geomorphology and climatic conditions of the region which have formed a unique environment where man, for thousands of years has coexisted harmoniously with nature. This special relationship of people with their environment is reflected in their activities, architecture and cultural traditions and is expressed today through the disposition of Greek Environmental Bodies, such as the Management Body of Parnon, Moustos, Mainalon & Monemvasia, to conserve and protect this beautiful landscape but also to highlight its uniqueness and specificities.

Therefore, we believe that publishing a Guide of Mount Parnon, an area particularly rich in plant species and with high levels of endemicity, where the wealth of butterfly species is presented, decisively contributes to both the awareness of residents and visitors, Greeks or foreigners. In order to highlight the need for protection and respect for all aspects of the natural environment, the local development program CLLD / LEADER under the Rural Development Program 2014-2020, provides assistance to our efforts by funding the publication of the Guide, in the framework of the project "Support of environmental awareness actions of the Management Body. The case of Parnon-Maleas Biosphere Reserve".

The project of the publication is extremely important as the result of the lifelong research of the author, an authentic nature-lover of Greece, while at the same time it is a product of the intensive fieldwork of special entomologists, who collaborated to complete the present publication. The scientific Guide you hold in your hands attempts to present Parnon area, as a start, offering valuable information about some of the most undoubtedly fascinating organisms, both from an aesthetic point of view and from a scientific point of view. The butterflies of Parnon present wide diversity in form, colour, habitat preferences and their relationship with their environment in general. More specifically, the Guide provides information about the mountain's butterfly species that concern identification, geographical distribution, flight-period, habitat and conservation status of different species.

As a representative of the Management Body, it is my special pleasure and honour to share "The Butterflies of Mount Parnon" with everybody interested, local resident or visitor, hoping that this excellent edition will fully fulfil its objectives.

> Dimitrios Milios Chairman of the Administrative Board of the Management Body of Parnon, Moustos, Mainalon & Monemvasia

The Management Body of Mount Parnon and Moustos wetland was established by Law 3044/2002 with the aim of administering and managing the protected area of Mount Parnon and Moustos wetland. By Law 4519/2018, it was renamed to Management Body of Parnon, Moustos, Mainalon & Monemvasia, since including, fourteen (14) Natura 2000 Network areas, thus significantly increasing its territorial jurisdiction, in addition to the existing area of responsibility [J.M.D. No. 33999 (Official Government Gazette/353/AAP/6.9.2010)].

The Management Body (M.B.) is a non-profit public benefit organization, supervised by the Ministry of Environment & Energy. It is governed by an 11-member Administrative Board appointed by ministerial decision, consisting representatives of ministries, local government, local agencies and environmental organizations.

The responsibilities of M.B. defined by the institutional framework include,

- an opinion during the management plan preparation process and its implementation, monitoring, evaluation and updating for the sustainable management and protection of the natural capital of the Natura 2000 network,
- using financial tools to promote new local development standards and actions,
- supporting studies, monitoring and projects included in the management plan, necessary for the protection, conservation and promotion of the protected areas of responsibility of the M.B.,
- providing opinions during the process of environmental licensing of projects and activities within the protected areas of responsibility, whose effects directly or indirectly affect the protected areas,
- encouraging consultation with local communities during the process of environmental reports, presidential decrees and management plans for the designation of protected areas,
- implementing national, European or international programs and actions,
- informing the public and production bodies and raising awareness on issues concerning the purposes of M.B.
- organizing training and educational programs, as well as public events for the promotion of protected areas,
- approving tour activities and assisting in the licensing of scientific research and technical testing and analysis,
- supporting ecotourism projects and actions for the promotion of local products.

#### **PROTECTED AREAS**

#### PROTECED AREA OF MOUNT PARNON AND MOUSTOS WETLAND

The protected area of Mount Parnon and Moustos wetland was established in 2010 by Joint Ministerial Decision [JMD No 33999 "Identification of the use of terms and building restrictions for the protection of land and water areas of the municipalities of Northern Kynouria, Leonidio, Skritida and Tyros of N. Arkadia, the municipalities Therapnon, Oinountos and Geronthron of N. Laconia and the communities Kosmas (N. Arcadia) and Karyon (N. Laconia) of the area Parnon - Moustos" (GG 353/AAI7.6.9.2010) and its amendment (GG 160/A.A.A.T./16.6.2011)], with the aim of protecting the area as a national Natural Heritage.

Parnon area includes about 23 habitat types. Some of them are unique or rare at national or European level, as the extensive black pine forests, the endemic forests with Syrian junipers, the chestnut forests, the Moustos lagoon, the Dafnonas ravine etc.

The most important areas of Parnon are a) wetlands and areas with Syrian junipers (*Juniperus drupacea*) (dense clusters and shrubland areas) b) areas of importance for the flora, which are exclusively shrubland areas and c) Mount Parnon peaks which, in addition to shrubland, also include grassland areas on a small plateau.

ZONING OF PROTECTED AREAS

According to the JMD No 33999/2010 the protected area includes the following areas (Law 1650/1986):

**A. Strict Nature Reserves:** extremely sensitive ecosystems or habitats with rare or endangered species of flora or fauna, which are crucial to the life cycle of rare or endangered species of wildlife.

a. Juniperus drupacea forest in Malevi Monastery (2.I)

b. Moustos Wetland (2.II)

In these areas only scientific research is allowed and no human activity of brief or of permanent nature of intervention in the natural environment.

**B. Nature Reserves:** include areas of ecological or biological importance in which natural environment is protected from activities and interventions that may alter conservation status, composition or evolution. The protected area of Mount Parnon and Moustos wetland includes the following:

a. Forests of Juniperus drupacea at Prastos (3.I)

b. Forests of Juniperus drupacea at Agios Vasilios-Platanaki (3.II)

c. Forests of Juniperus drupacea at Palaiochori (3.III)

d. Important flora area at mount Parnon peaks (3.IV)

- e. Important flora area at Mazia-Kontolina (3.V)
- f. Important flora area at Agios Ioannis-Orini Meligou (3.VI)
- g. Area of Dafnona gorge and monasteries of Sintza and Elona (3.VII)
- h. Moustos wetland (4.I)

Several activities are permitted, with no adverse effect on the protected area.

**C. Stream Protection Areas:** linear protection areas along the streams of Dafnonas, Vrasiatis and Tanos and the sides of the banks in a 50 m width

**D.** Other areas out of Strict Nature Reserves, Nature Reserves, Moustos Protection zone and areas with an approved city plan: this is the whole protected area, which is not included in the above zoning. It includes settlements or villages with special value and interest, due to the quality of their natural and cultural characteristics and at the same time offer significant opportunities for the development of activities that are harmonized with the protection of nature and the landscape.

Almost all activities are permitted with certain minimum conditions.

#### NATURA 2000 RESERVES

The jurisdiction area of the Management Body, according to Law 4519/2018 (OGG 25/A/20.02.2018) includes the following "NATURA 2000" European Ecological Network areas (symbolized by \*) (SAC: Special Areas of Conservation, SPA: Special Protected Areas, pSAC: proposed Special Areas of Conservation):

- SAC-SPA LIMNI STYMFALIA (GR 2530002) (1.308,91 ha).
- SAC OROS OLIGYRTOS (GR 2530004) (8.630,65 ha).
- SAC OROS MAINALO (GR 2520001) (22.673,07 ha).
- SPA ORI ARTEMISIO KAI LYRKEIO (GR 2510004) (11.477,38 ha).
- SAC LIMNI TAKA (GR 2520002) (1.033,15 ha).
- SAC AKRONAFPLIA KAI PALAMIDI (GR 2510003) (366,16 ha).
- SAC LIMNOTHALASSA MOUSTOU (GR 2520003) (368,24 ha).
- SAC OROS PARNONAS (KAI PERIOCHI MALEVIS (GR 2520006) (55.767,52 ha).
- SAC -pSAC MONI ELONAS KAI CHARADRA LEONIDIOU SPILAIO MANA KAI GALAZIA LIMNI (GR 2520005) (8.293,47 ha).
- SAC -pSAC ORI GIDOVOUNI, CHIONOVOUNI, GAIDOUROVOUNI, KORAKIA, KALOGEROVOUNI, KOULOCHERA KAI PERIOCHI MONEMVASIAS SPILAIO SOLOMOU TRYPA KAI PYRGOS AG. STEFANOU KAI THALASSIA ZONI EOS AKROTIRIO KAMILI (GR 2540001) (38.869,97 ha).
- SPA ORI ANATOLIKIS LAKONIAS (GR 2540007) (37.566,61 ha).
- SAC pSAC EKVOLES EVROTA, PERIOCHI VRONTAMA KAI THALASSIA PERIOCHI LAKONIKOU KOLPOU (GR 2540003) (10.632,61 ha).
- SPA YGROTOPOI EKVOLON EVROTA (GR 2540006) (2.172,76 ha).
- SAC PERIOCHI NEAPOLIS KAI NISOS ELAFONISOS (GR 2540002) (5.493,74 ha).

In addition to the above, within the boundaries of territorial jurisdiction of Management Body four Important Bird Areas (IBA's) are included:

- LIMNI STYMFALIA (GR 117)
- ORI ARTEMISIO KAI LYRKEIO (GR 118)
- YGROTOPOI EKVOLON EVROTA (GR 122)
- ORI ANATOLIKIS LAKONIAS (GR 123)

The territorial jurisdiction of the Management Body covers almost the entire Eastern Peloponnisos, extends within the boundaries of 10 Municipalities and 4 Prefectures (Laconia, Arcadia, Argolis and Corinthia), with the largest part belonging to the Prefecture of Laconia. The Management Body occupies mountainous ecosystems (Parnon, Mainalon, Oligyrtos, Artemisio and Lyrkeio, mountains of Eastern Laconia), wetlands (Moustos, Evrotas estuary), lakes (Stymfalia, Taka), rivers (Evrotas), islands (Elafonisos) and sea areas (Laconic gulf and Monemvasia sea zone).

#### MAN AND NATURE TOGETHER

#### The case of Mount Parnon and Cape Maleas Biosphere Reserve

As part of the joint effort of the bodies of the Parnon - Malea region to link biodiversity with entrepreneurship, a nomination form was prepared by the Management Committee in order for the region to be included in the UNESCO World Biosphere Reserve Network. The Man and the Biosphere (MAB) Program, which includes 701 sites in 124 countries, aims to establish a scientific basis for enhancing the relationship between people and their environments. It combines the natural and social sciences with a view to improving human livelihoods and safeguarding natural and managed ecosystems, thus promoting innovative approaches to economic development that are socially and culturally appropriate and environmentally sustainable. As the inclusion of the area of the proposed Biosphere Reserve "Parnon - Maleas" in the MAB Program does not imply further legal commitments and restrictions, it is considered as a good opportunity to address and resolve local problems and related conflicts, with the effective participation of the population.

The area is characterized by a strong Mediterranean landscape with dominant elements, the remarkable natural environment, the diffuse and recognizable historical and cultural heritage. The geographical boundaries of the Parnon - Maleas Biosphere Reserve are identical with the administrative boundaries of a total of six neighboring municipalities, more specifically the Municipalities follow the administrative division of North Kynouria, South Kynouria, Monemvasia, Elafonisos, Sparta and Eurotas.

The proposed Biosphere Reserve (BR) substantially promotes the supporting and strengthening entrepreneurship pilot actions and biodiversity protection and strengthens emblematic innovative business initiatives by introducing relevant certification. Also, the creation of an internationally recognizable identity (Brand) for the Parnon - Maleas region and its products is promoted and supported.

The vision of the BR Parnon - Maleas reflects the long-term objectives of the Management Committee that designs and implements the local strategy, but also the aspirations and expectations of the local community. For the area of the proposed Biosphere Reserve, the objectives described and implemented are:

- Nature protection and conservation / research, scientific monitoring, actions of sustainable management of nature and resources, through the actions of the Management Body of Parnon, Moustos, Mainalon and Monemvasia.
- Promoting local identity, improving the quality of life, promoting local entrepreneurship (cooperation, transfer of know-how and enhancing innovation and extroversion), through the actions of the Regional Development Company of Parnonas S.A.

In this context, the region fulfils the three interrelated fundamental functions which according to the UNESCO MAB Program are: promoting economic & social development in the context of sustainability, contributing to the conservation of landscapes, ecosystems, species and biodiversity in general, and, program support, environmental education, research and monitoring for environment and sustainable development.

#### FOREWORD BY THE FIRST AUTHOR

The idea of this book came to light in July 2016 when I met for the first time the people of the Management Body in their Astros offices. I proposed to accomplish a survey of the butterfly species of the area and we agreed that the final outcome should have been a book covering all the butterflies that I was going to find.

The survey started, without setting any deadline, so after decades spent studying the butterflies in remote and difficult areas of all continents, I found myself dedicated full time to the relatively small but very beautiful Parnon Mountains. In the last four years I have spent as much time as possible there, trying to explore as many different habitats as possible, at different altitudes and in every season of the year.

I must heartily thank Wendy Copage, Saranto Dolianitis and Sue Davy for their invaluable help during the explorations: Wendy, with her unrivalled knowledge of the territory, has guided us to the most remote paths of Mount Parnon, Sarantos has been an enthusiastic companion, always keen to learn about butterflies and Sue not only provided a precious logistic support, but also shared with us her botanical knowledge.

Special thanks also go to my wife Laura who took most of the photos of butterflies in nature. Her enthusiasm and her skill are behind the lovely images that you'll find in this book. The photos of spread specimens are by me.

I would like to thank my entomologist friends, from Italy, Israel and Japan, who in the past years have visited us in Leonidio giving their contribution to the knowledge of the Parnon insect fauna. My special thanks go to Alessandro Floriani who first discovered here three rare species.

John Coutsis and Nick Gavalas, two of the most knowledgeable experts of Greece butterflies, had a pivotal role in the preparation of this book. They shared with me their outstanding knowledge of the habitats and distribution of butterflies in Greece, helping to build a much more precise picture of the butterfly fauna of Mount Parnon.

Nick has kindly accepted to be co-author of the book and John has been constantly supporting the project, giving an invaluable contribution to all the contents of the book.

Last but very important, I like to thank the people of the Management Body: Katerina Pantazi, Argyris Boglis and all the staff and the guards of the protected area that we often met in remote mountain paths. They have been from the beginning friendly and helpful and it has been a pleasure working with them.

Gian Cristoforo Bozano Leonidio, September 2020





## What is a butterfly?

The butterflies are insects and belong to the order of Lepidoptera (from the Greek "wings with scales").

The Lepidoptera have appeared on the earth over 100 million years ago and presently number almost 200,000 known different species, the second largest insect order after the Coleoptera (the beetles).

The butterflies, with about 20.000 species, represent a relatively small group of the whole Lepidoptera order. They are distinguished from all their relatives, commonly known as moths, by three main characters: they fly only during the daytime, the tip of their antennae is thickened, or clubbed, making them resemble a drum-stick, (the other Lepidoptera have antennae of various shapes, thread-like or feather-like, but never clubbed at the tip) (Fig. 1), and they fold their wings in a vertical position over their back while resting, whilst all other Lepidoptera hold them flat to the sides of their body (Fig. 2).



Fig. 1 left: antenna of a butterfly - right: four antennae of other Lepidoptera



Fig. 2 left: a butterfly resting - right: a burnet moth resting

The scientific classification, or systematics, of the butterflies follows the rules of the binomial system like every other animal or plant species: a species is univocally referred to by the name of a genus, with its initial in capital lettering, and of a species, with its initial in small lettering. A genus is a group of species sharing one or more characters different from any other species not belonging to that genus.

The binomial system was established in the 18th century by Linnaeus, a Swedish naturalist, who named thousands of animals and plants in his famous book "Systema naturae".

Here you will find for every different butterfly species the names of the genus, of the species and of the author who first discovered and described that species, together with the year when the discovery was published. For instance *Papilio machaon* Linnaeus, 1758. The vernacular names in local languages have no scientific value but are often easier to use.

## The life of a butterfly

Butterflies, like most insects, have a complex life cycle consisting of four stages, that are very different from each others both in shape and in behaviour.

The first stage is the **egg**. A butterfly female lays 80 to 500 eggs, tiny but often with complicated shape and sculptures (Fig. 3). The eggs of butterflies, and those of insects in general, are very tough and can survive under very low temperatures that would kill most adult insects.



Fig. 3 different shapes of eggs of butterflies and of other Lepidoptera

After some time, varying from a few days to some months depending on the species, a young **caterpillar** gnaws its way through the shell of the egg and comes out in the shape of a slender worm which immediately starts feeding on the leafs of the plant where its mother has laid the egg. The caterpillars of every butterfly species have their own food preferences, eating one or more plant species. The female butterfly, when seeking a place for her eggs, selects as an expert botanist the plants that the caterpillars will need to feed upon when hatched.

The caterpillars (Fig. 4) eat a lot and grow quickly, but, since their skin is not elastic, they undergo several moultings (skin changes), usually five or six. Their skin is shed after breaking dorsally and it is replaced by a new larger one.



Fig. 4 caterpillars

After having reached full growth, that is once they have reached their maximum size, they undergo another important transformation becoming a **pupa** or **chrysalis** (Fig. 5), a seemingly inert and motionless stage undergoing internally all the necessary transformations and tissue rearrangements eventually leading to the birth of a mature winged butterfly.

The duration of the pupa stage varies from a few days to several months, and in some rare instances even several years.



**Fig. 5** pupae of different species of butterflies and of moth. Some are suspended by the tail, some by a belt and some simply lay on the ground When the time has come the shell of the pupa breaks and the **butterfly** emerges. At the beginning the wings are completely folded, crinkled and wet. The butterfly, sitting in a safe place, will then manage to spread the wings and to have them dried by the air and the sun. Then at last it is ready to fly.

The butterfly is very different from the caterpillar: it has not only the legs but also two pairs of wings. The body is much slimmer than in the caterpillar and the mouth is completely different in order to fulfil completely different food requirements. The caterpillar feeds of leaves and the mouth has a pair of robust jaws to cut the leaves. The butterfly feeds of tiny drops of nectar that the butterfly finds inside the flowers. The mouth is a delicate sucking tool, named proboscis, (Fig. 6) that the butterfly can extend to reach the internal cavities of the flowers where the nectar is to be found.

A butterfly, unlike a caterpillar, does not grow and retains the same size it had when emerging from the pupa. Therefore the required quantity of food is much less than for the caterpillars.



Fig. 6 butterfly head with eyes, palpi and proboscis

How long does an adult butterfly live? From a few weeks to several months, and often to about one year, depending on the species. In the latter case butterflies which have first appeared on the wing in late spring / early summer, enter into aestivation (go to sleep during summer) all through the hottest period of the summer months, then wake up and resume flight during the cooler autumn months and eventually enter into hibernation (go to sleep during winter) throughout the coldest period of the winter months, finally waking up and resuming flight in early to mid-spring of the following year. It is during this last period that their mating, egg laying and ensuing death takes place, thus marking the completion of their year-long life cycle.

## Which butterfly is this?

Vladimir Nabokov, the famous novel writer, said: "I cannot separate the aesthetic pleasure of seeing a butterfly and the scientific pleasure of knowing what it is".

How can we recognize what species the beautiful butterfly flying in front of us belongs to?

Nowadays there are sophisticated techniques allowing a precise classification of most animals, including the butterflies. The study under a microscope of their anatomical details or the laboratory examination of the molecular structure of a fragment of DNA will give us an indisputable answer. But we don't need these complex techniques, as we can recognize most of the butterfly species by just looking at their wing colours and markings. Some species are so distinctive that you can recognize them in flight, others require a more detailed observation that may be made either with the help of colour pictures of individuals at rest or on momentarily captured and released specimens.

Of course a basic knowledge of the wings of the butterflies is required.

Butterflies have two pairs of wings (one pair on each side), the anterior of either pair being called forewing and the posterior hindwing. Both left and right forewings as well as both left and right hindwings are symmetrical to each other in shape, colour scheme, and markings, but no symmetry exists between either of the two forewings and their corresponding hindwings. The upper side (dorsal side) of a butterfly's wings is most often totally different from the underside (ventral side) (Fig. 7), the latter very often exhibiting colour schemes and markings that camouflage the insect when at rest into merging with its natural surroundings.

When trying to identify a butterfly one must look for diagnostic characters on either of the two forewings and corresponding hindwings both upper side and underside, and when



Fig. 7 upper side and underside of a butterfly



Fig. 8 upper side of a spread butterfly showing the different areas of the wings

these characters are discovered reference should be made as to their exact location on the wings, the geography of which is shown in Fig. 8.

While determining which species a butterfly belongs to, there is yet another element that has to be taken into account: in many species the wing colour and markings are different between the male and the female. This condition, common in many animal species, is called sexual dimorphism. In the butterflies the sexual dimorphism, when present, varies from slight to very pronounced.

Other forms of variation frequently found in butterflies are the individual and the seasonal one. Butterflies belonging to the same species may have different size, colours and markings, but usually the differences are slight and limited to detail. Seasonal variation in particular is governed by climatic conditions (temperature, humidity) as well as by the particular immature stage (egg, larva, pupa) the insect was in when affected by these conditions.

### **The butterflies of Mount Parnon**

So far 110 species of butterflies have been reliably recorded in the Mount Parnon area. This represents the 89% of the species known from the whole of Pelopónnisos (124 species) and the 45% of the totality of species known from Greece (240 species).

Since butterflies are often elusive and rare creatures, it is likely that some more species, new to the Parnon area will be discovered in the future.

In the next pages of the book you will find an account of all the 110 butterfly species where for every species being listed the following information is given:

- scientific name (in italic lettering), author's name and year when the description of that species was first published
- relevant characters of colour and wing markings that allow one to understand which species it is as well as female characters, if different from those of the male
- similar species, if any in the area
- caterpillar food plants, habitat and flight period in the area
- general range inhabited by a species and its range in Greece
- actual size photos of upper side and underside of the male and, when different, also
  of the female

The following abbreviations are used:

 $\delta$  = male  $\varphi$  = female ups = upper side uns = underside S., N., E., W. = South, North, East, West C. = Central m = meters



## family Papilionidae

A family of large and colourful butterflies, represented by about 600 species worldwide, a dozen of them found in Europe and just five in the Párnon area.

Their wings are white or yellow with black stripes and black, blue or red spots. The sexual dimorphism is negligible: the wing colour and markings of the females are same as in the males, but the abdomen is larger in the females.

The genera found in the Párnon area are the following:

#### Papilio:

hindwings with tails, upper side ground colour yellow - 2 species

#### Iphiclides:

hindwings with long tails, upper side ground colour white - 1 species

#### Parnassius:

no tails, upper side ground colour white, with black spots - 1 species

#### Zerynthia:

no tails, upper side ground colour yellow, with red and black markings - 1 species



## Papilio machaon

Author: Linnaeus, 1758

English name: Swallowtail

Diagnosis: hindwing with tail

Female: same as male

**Caterpillar food plant:** several Umbelliferae , subfamily Apioideae

#### Habitat in Párnon area:

all habitats, from 0 to 1700 m, the males like to fly around hill and mountain tops

#### Flight period in Párnon area:

March to October, three broods

Status in Párnon area: common

#### Range:

widely spread in Europe and N.W. Africa to China and Japan, found also in N. America

#### Range in Greece:

whole of Greece including all islands









## Papilio alexanor

Author: Esper, 1799

English name: Southern Swallowtail

#### **Diagnosis:**

large, hindwings with tails, wings crossed by transverse black bars

Female: same as male

#### Similar species:

Apiaceae)

Papilio machaon without the black bars across the wings

Caterpillar food plant: several umbellifers

(family

Habitat in Párnon area: dry slopes and meadows, from 0 to 1000 m

Flight period in Párnon area: March to May, one brood

Status in Párnon area: uncommon

#### Range:

S.E. Europe, Asia Minor, Middle East to Central Asia

#### Range in Greece:

most of mainland Greece, Ionian islands and some Aegean islands









## Iphiclides podalirius

Author: Linnaeus, 1758

English name: Scarce Swallowtail

**Diagnosis:** large, hindwings with long tails, upper side ground colour white, wings crossed by transverse black bars

Female: same as male

#### Similar species:

ground colour yellow in Papilio machaon and Papilio alexanor

#### Caterpillar food plant:

several *Prunus* species including fruit trees

#### Habitat in Párnon area:

meadows and clearings, from 0 to 1700 m

Flight period in Párnon area: March to September, three broods

Status in Párnon area: very common

Range: Europe and Asia to China

Range in Greece: whole of Greece including all islands









## Parnassius mnemosyne

Author: Linnaeus, 1758

English name: Clouded Apollo

**Diagnosis:** easily recognizable by the translucent white ground colour with two black spots in the forewing cell

Female: same as male

Similar species: Aporia crataegi without black spots on the forewing

Caterpillar food plant: several *Corydalis* species

Habitat in Párnon area: mountain meadows above 1500 m

Flight period in Párnon area: June and July, one brood

Status in Párnon area: locally common

Range: Europe, Asia Minor, Middle East, Central Asia

#### Range in Greece:

most of mainland Greece



di uns





## Zerynthia polyxena

#### Author:

Denis & Schiffermüller, 1775

English name: Southern Festoon

**Diagnosis:** easy to identify for the wing markings

Female: same as male

Similar species: none in the area

#### Variations:

some specimens have a dark yellow upper side ground colour

Caterpillar food plant: Aristolochia species

#### Habitat in Párnon area:

meadows and clearings from 300 to 1000 m

Flight period in Párnon area: February to April, one brood

Status in Párnon area: widespread, but not common

**Range:** S. Europe to S. Ural mountains, Asia Minor

#### **Range in Greece:**

mainland Greece and Ionian islands, Évia island, and certain islands of the Saronikos and the Kikladhes groups









## family **Pieridae**

A family of medium size butterflies, called "Whites and Yellows" or "Sulphurs".

Their wings are white, yellow or orange, often with black spots. The sexual dimorphism is strong: the females are usually less coloured than the males and have additional black spots.

The caterpillars feed on many species of crucifers or leguminous plants.

The adult butterflies are strong flyers, often very common in open areas.

Pieridae is a large family found in all continents and all climates. Over 1200 species are known, about 60 of them are found in Europe and 25 in Greece. In the Párnon area there have been recorded 16 species belonging to the following genera:

#### Pieris:

ground colour white, with a few black spots - 5 species

Aporia: ground colour white with veins strongly lined with black - 1 species

#### Anthocharis:

males with apex of the forewings bright orange - 3 species

#### Euchloe:

white with black spots and underside of the hind wing white and green - 1 species

Pontia: similar to Euchloe - 1 species

#### Colias:

ground colour bright yellow/orange - 1 species

#### Gonepteryx:

apex of the forewing and anal angle of the hindwing pointed - 3 species

#### Leptidea:

small, wings elongate, white - 1 species



## Pieris brassicae

Author: Linnaeus, 1758

English name: Large White

Diagnosis: the largest Pieris species

**Female:** forewing upper side with two median black spots

**Similar species:** all the other *Pieris* species are much smaller

**Caterpillar food plant:** several Cruciferae spp.

Habitat in Párnon area: found everywhere, from 0 to 1800 m

Flight period in Párnon area: several broods from March to October

Status in Párnon area: very common

**Range:** Europe, N.W. Africa, Asia Minor, W. and Central Asia

Range in Greece: whole of Greece including all islands







8

7

6

9

10



12

11


# Pieris ergane

Author: Geyer, 1828

English name: Mountain Small White

**Diagnosis:** the smallest *Pieris* species; the black spots on the forewing underside are almost invisible

**Female:** forewing upper side with two median black spots

Similar species: all the other *Pieris* species have one or two evident black spots on the forewing underside

Variations: the specimens of the summer broods are smaller and the upper side is completely white

Caterpillar food plant: principally Aethionema spp.

Habitat in Párnon area: meadows and clearings from 700 to 1800 m

Flight period in Párnon area: several broods from April to October

Status in Párnon area: common

Range: S. Europe, Asia Minor, Middle East

# Range in Greece:

all of Mainland Greece including the islands of Évia, Kríti, Sámos, Thásos and Kefaloniá













# Pieris napi









Author: Linnaeus, 1758

English name: Green-veined White

**Diagnosis:** the veins are lined with greenishgrey, especially evident on the hindwing underside

Female: forewing upper side with two median black spots

Similar species: Pieris brassicae is much larger, Pieris rapae has the hindwing underside almost uniformly yellow

Variations: summer brood specimens have the veins' dark lining less evident, the males have one black spot on the forewing upper side (the spot is missing or vestigial in the first brood males)

Caterpillar food plant: many Cruciferae species

#### Habitat in Párnon area: meadows and clearings from 700 to 1800 m

# Flight period in Párnon area:

several broods from April to October

Status in Párnon area: locally common

Range: S. Europe, Asia Minor, Central Asia

**Range in Greece:** most of mainland Greece and Évia, Kérkira , Híos, Sámos, Lèsvos, Samothraki and Kos islands





# Pieris krueperi

Author: Staudinger, 1860

English name: Krueper's Small White

**Diagnosis:** the black markings on the apex of forewing underside are distinctive; the hindwing underside has a yellow-green suffusion, darker in spring brood

Female: black spots more developed

Similar species: easy to recognize from the other *Pieris* species

Variations: the green-yellow suffusion on the hindwing underside is more developed in the spring brood specimens

Caterpillar food plant: Alyssum species

Habitat in Párnon area: rocky slopes 300 to 1200 m

Flight period in Párnon area: several broods from April to October

Status in Párnon area: local

1900 1500 1000

500 0

З

4

5

6

7

8

9

2

1

Range: S. Balkans, Asia Minor, to N. India

#### Range in Greece:

mainland Greece and Évia, Kérkira, Híos, Kos and Sámos islands









10

11

12



# Pieris rapae

Author: Linnaeus, 1758

English name: Small White

# **Diagnosis:**

the black spots on the forewing underside are well developed; hindwing under almost uniformly pale yellow

Female: forewing upper side with two median black spots

# Similar species:

Pieris brassicae is much larger, Pieris napi has the hindwing underside veins lined with greenish-grey

Caterpillar food plant: principally Brassicaceae

# Habitat in Párnon area:

meadows and clearings from 0 to 1900 m

# Flight period in Párnon area:

several broods from February to November

Status in Párnon area: very common

Range: Europe, N.W. Africa, Asia Minor, Asia to Japan

Range in Greece: whole of Greece including all islands













↑ male and female courtship flight



# Aporia crataegi

Author: Linnaeus, 1758

English name: Black-veined White

**Diagnosis:** all veins are strongly lined with black

Female: wings translucent

#### Similar species:

Parnassius mnemosyne has black spots on the forewing upper side

Caterpillar food plant: Prunus species

Habitat in Párnon area: meadows, forest clearings, roadsides, from 0 to 1500 m

Flight period in Párnon area: May to July, one brood

Status in Párnon area: very common

# Range:

from C. and S. Europe, N.W. Africa to temperate Asia and Japan

#### **Range in Greece:**

mainland Greece and many islands, absent from Kríti









1	2	3	4	5	6	7	8	9	10	11	12
---	---	---	---	---	---	---	---	---	----	----	----

# Pontia edusa



∂ ups









Author: Fabricius, 1777

English name: Eastern Bath White

**Diagnosis:** easy to identify for the underside green-yellowish markings

Female: upper side with black spots more developed

### Similar species:

Pontia daplidice which flies in western Europe, is morphologically indistinguishable and it is identifiable only by biochemical examinations. *Euchloe ausonia* with black markings on upper side less developed and white spots on underside of hindwings less regular

Caterpillar food plant: several Cruciferae and Resedaceae species

Habitat in Párnon area: meadows and clearings from 0 to 1800 m

Flight period in Párnon area: several broods from February to October

Status in Párnon area: common

Range: S. Europe, Asia Minor, Middle East

**Range in Greece:** whole of Greece including all islands





# Euchloe ausonia

Author: Hübner 1804

English name: Eastern Dappled White

# **Diagnosis:**

the forewing apical area is black with white spots, the hindwing underside is greenish-yellow with large white spots

Female: same as the male

### Similar species:

the female of *Anthocaris cardamines* looks somehow similar to *Euchloe ausonia* but it has the forewing more rounded.

*Pontia edusa* has the black discoidal spot on the upper side of the forewing much wider and the white spots on the underside if the hindwing more regular

# Caterpillar food plant:

several Cruciferae species

#### Habitat in Párnon area:

meadows and clearings from 200 to 1300 m

#### Flight period in Párnon area:

two broods from March to June

# Status in Párnon area: common

#### Range:

Italy, Balkans, Asia Minor, Middle East, Central Asia

#### Range in Greece:

whole of Greece including all islands













male and female



# Anthocharis cardamines

### Author: Linnaeus, 1758

English name: Orange Tip

### **Diagnosis:**

in the male the apical area of the forewing is orange and the ground colour is white

# Female:

forewing upper side without the orange apical area

### Similar species:

Anthocaris gruneri is smaller and in the male the upper side of the wings is light yellow

# Caterpillar food plant:

several Crucifearae species

Habitat in Párnon area: meadows and clearings from 0 to 1500 m

Flight period in Párnon area: one brood from April to June

# Status in Párnon area: common

Range: Europe, Asia Minor, Middle East, Asia to Japan

#### **Range in Greece:**

whole of Greece including some Kikladhes islands, as well as the islands of Évia, Scópelos, Híos, Sámos, Kérkira and Lefkádha



ups



uns







# Anthocharis damone



∂ ups



∂ uns





Author: Boisduval, 1836

English name: Eastern Orange Tip

### **Diagnosis:**

in the male the apical area of the forewing is orange and the ground colour is yellow

#### Female:

forewing upper side without the orange apical area, hindwing underside yellow

# Similar species:

Anthocaris gruneri is smaller and in the male the upper side of the wings is light yellow. Anthocaris cardamines in the male the upper side is white instead of yellow, in the female ground colour of the underside of the hind wing is white, not yellow

# Caterpillar food plant:

Isatis tinctoria

Habitat in Párnon area: meadows and clearings from 700 to 1100 m

# Flight period in Párnon area:

one brood from April to June

# Status in Párnon area: very rare

#### Range:

S. Balkans and S. Italy, Asia Minor, Middle East

# Range in Greece:

most of Greece, not in the islands, except in Kérkira



# Anthocharis gruneri

# Author: Herrich-Schäffer, 1851

English name: Gruner's Orange Tip

# **Diagnosis:**

in the male the apical area of the forewing is orange and the ground colour is light yellow

# Female:

forewing upper side without the orange apical area

# Similar species:

Anthocaris cardamines is larger and in the male the upper side of the wings is white, not light yellow. *Euchloe ausonia* somehow resembles to the female of *A. gruneri* but the black discoidal spot on the forewing is smaller and not joined to the wing costal margin as in *A. gruneri* (see below)

Caterpillar food plant: Aethionema species

Habitat in Párnon area: meadows and clearings from 400 to 1300 m

Flight period in Párnon area: one brood from April to June

# Status in Párnon area:

locally common

# Range:

S. Balkans, Asia Minor, Middle East

# Range in Greece:

most of mainland Greece, present only in Thàsos and Évia islands













Euchloe ausonia

1	2	3	4	5	6	7	8	9	10	11	12



# Colias crocea

Author: Geoffroy, in Fourcroy, 1785

English name: Clouded Yellow

# **Diagnosis:**

easy to identify by the upper side bright yellow-orange with black margins

# Female:

in the black margin there are large yellow spots

Similar species: none in the area

# Variations:

often the female has the upper side whitish instead of yellow (form *helice*)

# Caterpillar food plant:

Leguminosae species

Habitat in Párnon area: meadows and clearings from 0 to 1900 m

Flight period in Párnon area: several broods from March to November

Status in Párnon area: very common

# Range:

Europe, N.W. Africa, Asia Minor to Central Asia

# Range in Greece:

whole of Greece including the islands











form *helice* 

1	2	3	4	5	6	7	8	9	10	11	12

# Gonepteryx rhamni





⊰ uns





Author: Linnaeus, 1758

English name: Brimstone

# **Diagnosis:**

wing upper side ground colour bright yellow in male, greenish-white in female; the forewing apex and the hindwing anal angle are pointed as in all Gonepteryx species

Female: upper side greenish-white

# Similar species:

Gonepteryx farinosa that has the hindwing anal angle less acute and the male upper side with a powdered appearance and a more intense yellow on forewing than on hindwing

Caterpillar food plant: Rhamnus species

# Habitat in Párnon area:

meadows and clearings from 0 to 1900 m

# Flight period in Párnon area:

two broods, one on May-June and the second from late summer, then hibernates and reappears again in early Spring

# Status in Párnon area: common

#### Range:

7

Europe, N.W. Africa, Asia Minor to Central Asia

# **Range in Greece:**

8

mainland Greece and Évia island

9



10

11

# Gonepteryx farinosa

# Author: Zeller, 1847

# English name: Powdered Brimstone

# **Diagnosis:**

ground colour of male ups bright yellow with powdering on forewing and light yellow on hindwing and of female whitish on both wings; the forewing apex and the hindwing anal angle are pointed as in all Gonepteryx species

Female: upper side ground colour whitish

# Similar species:

G. rhamni female differs by its greenish-white ups ground colour and more developed pointed extension on each wing and G. cleopatra female by its greenish-white to pure yellow ups ground colour and less developed pointed extension on each wing

# Caterpillar food plant:

Rhamnus species and Paliurus spina-christi

### Habitat in Párnon area:

meadows and clearings from 0 to 1600 m

# Flight period in Párnon area:

two broods, one on May-June and the second from late summer, then hibernates and reappears again in early Spring

Status in Párnon area: very common

# Range:

1

S. Balkans, Asia Minor, Middle East to Central Asia

Range in Greece: most of mainland Greece, Ionian and Aegean islands







# Gonepteryx cleopatra

# Author: Linnaeus, 1767

English name: Cleopatra

# **Diagnosis:**

the forewing apex and the hindwing anal angle are pointed as in all *Gonepteryx* species; in the male the apical area of the forewing is orange

# Female:

upper side ground colour whitish or yellow, without the apical orange area present in the male

# Similar species:

the female is similar to that of *G. rhamni* and *G. farinosa* 

# Variations:

female upper side ground colour often yellow instead of whitish

Caterpillar food plant: Rhamnus species

# Habitat in Párnon area:

meadows and clearings from 0 to 1900 m

# Flight period in Párnon area:

several broods from February to November

Status in Párnon area: very common

# Range:

S. Europe, N.W. Africa, Asia Minor and Middle East

# Range in Greece:

2

1

whole of Greece including all islands

3



4

5





Stefano Bossi www.farfalle.altervista.org



# Leptidea sinapis

### Author: Linnaeus, 1758

English name: Wood White

# **Diagnosis:**

small, wings elongated, male upper side of the forewing with black apex

Female: upper side almost completely white

Similar species: none in the area

#### Variations:

in summer broods all the dark markings are very reduced or absent. Recently it has been found that in Europe there are two more species. Leptidea reali and Leptidea iuvernica. externally identical to Leptidea sinapis, but with different DNA and different anatomical strucures

Caterpillar food plant: several Leguninosae species

#### Habitat in Párnon area:

meadows and clearings from 200 to 1500 m

#### Flight period in Párnon area:

several broods from April to September

#### Status in Párnon area: common

#### Range:

Europe, Asia Minor, Central Asia

#### Range in Greece:

whole of Greece including a great number of islands





& ups



∂ uns







# family Nymphalidae

A family of medium to large size butterflies, which all around the world includes over five thousand species. The family Nymphalidae is divided in thirteen very different subfamilies. The following seven subfamilies are present in the Párnon area:

Nymphalinae: large, strong flyers, wing shape more or less irregular

Limenitidinae: upper side black with large white spots

Charaxinae: very large, strong flyers, hindwings with two tails each

Heliconiinae:

upper side orange with many black spots

Danainae: large, slow flyers, wings light orange-brown

Libytheinae: small, wing shape irregular, head with very long palpi resembling a long nose

# Satyrinae:

the subfamily with more species among Nymphalidae. Size from very small to large, colour brown or black, but also orange or white with large black spots. All Satyrinae feed on monocot grasses



# Nymphalis polychloros

# Author:

Linnaeus, 1758

# English name:

Large Tortoiseshell

### **Diagnosis:**

large, wing margins scalloped, upper side dark orange-red with black spots

#### Female:

same as male

#### Similar species:

similar to *Aglais urticae*: *Aglais urticae* is smaller, with hindwing upper side basal and median areas black instead of red-brown

### Caterpillar food plant:

elms, poplars and many other trees

#### Habitat in Párnon area:

forest clearings from 500 to 1500 m

# Flight period in Párnon area:

wintered specimens February to April, freshly emerged ones June to September

# Status in Párnon area:

common

#### Range:

Europe, N.W. Africa, Asia Minor, Middle East to Central Asia

# Range in Greece:

most of mainland Greece including some islands







Aglais urticae



1	2	3	4	5	6	7	8	9	10	11	12
---	---	---	---	---	---	---	---	---	----	----	----

# Nymphalis antiopa



∂ ups



Author: Linnaeus, 1758

**English name:** Camberwell Beauty

#### **Diagnosis:**

large, wing margins scalloped, upper side dark with marginal yellow bands

Female: same as male

Similar species: none in Párnon area

Caterpillar food plant: poplars and willows

Habitat in Párnon area: forest clearings from 500 to 1600 m

Flight period in Párnon area: wintered specimens March to April and freshly emerged ones June to September

Status in Párnon area: very rare

Range: Europe, temperate Asia and N. America

#### Range in Greece:

most of mainland Greece including the islands of Évia. Thásos and Samothráki



# Vanessa atalanta

# Author:

Linnaeus, 1758

English name: Red Admiral

# **Diagnosis:**

upper side black with red bands and white spots

Female: same as male

Similar species: none in Párnon area

Caterpillar food plant: nettles (*Urtica* spp.) and *Parietaria* spp.

Habitat in Párnon area: all habitats from 0 to 1700 m

# Flight period in Párnon area:

wintered specimens January to May and freshly emerged ones May to November

# Status in Párnon area:

common

# Range:

Europe, Asia Minor, Asia to China and Japan, N. America south to Guatemala

# Range in Greece:

whole of Greece including all islands













# Vanessa cardui

# Author:

Linnaeus, 1758

English name: Painted Lady

# Diagnosis:

upper side dull orange with black spots, apex black with white spots

Female: same as male

Similar species: none in Párnon area

Caterpillar food plant: nettles (*Urtica* spp.) and thistles

Habitat in Párnon area: all habitats from 0 to 1700 m

# Flight period in Párnon area:

wintered specimens from January to May and freshly emerged ones from May to December

# Status in Párnon area:

very common

# Range:

cosmopolitan except New Zealand and greater part of S. America

# Range in Greece:

whole of Greece including all islands



Contraction of the second seco



# Aglais urticae







Author: Linnaeus, 1758

English name: Small Tortoiseshell

**Diagnosis:** upper side red with small blue spots at the margins

Female: same as male

Similar species: similar to *Nymphalis polychloros*: *Nymphalis polychloros is* larger, with hindwing upper side basal and median areas red-brown instead of black

Caterpillar food plant: nettles (Urtica spp.)

Habitat in Párnon area: all habitats from 1200 to 1900 m

Flight period in Párnon area: from May to October in one brood

Status in Párnon area: locally common

**Range:** Europe, Middle East, Caucasus, Transcaucasia, Central Asia to China and Japan

Range in Greece: most of mainland Greece, Évia and Thásos islands



1	2	3	4	5	6	7	8	9	10	11	12
---	---	---	---	---	---	---	---	---	----	----	----

# Polygonia c-album

Author: Linnaeus, 1758

English name: Comma

**Diagnosis:** wing margins strongly scalloped

Female: same as male

#### Similar species:

*Polygonia egea* having wings less strongly scalloped, black markings on upper side fewer and smaller, white marking on hindwing underside smaller and angular

Caterpillar food plant:

Urtica, Prunus, Ulmus etc.

Habitat in Párnon area: woodland with clearings from 300 to 1700 m

Flight period in Párnon area: May to August in two broods

Status in Párnon area:

common

#### Range:

from Europe and N.W. Africa to China and Japan

#### Range in Greece:

all of mainland Greece as well as Kérkira and Thásos Islands











photo by Wendy Copage



# Polygonia egea

# Author:

Cramer, 1775

English name: Southern Comma

**Diagnosis:** wing margins strongly scalloped

Female: same as male

# Similar species:

*Polygonia c-album* having wings more strongly scalloped, black markings on upper side more numerous and more pronounced, white marking on hindwing underside larger and rounded

Caterpillar food plant: Parietaria spp.

Habitat in Párnon area: rocky slopes from 0 to 1700 m

# Flight period in Párnon area:

April to October in several broods

# Status in Párnon area:

common

# Range:

S. Europe (except Iberian Peninsula), Asia Minor and Middle East

# Range in Greece:

whole of Greece including most of the islands









photo by Wendy Copage





# Charaxes jasius

Author: Linnaeus, 1767

English name: Two-tailed Pasha

**Diagnosis:** large, hindwing with two tails

Female: same as male

Similar species: none in Párnon area

**Caterpillar food plant:** Strawberry tree (*Arbutus* species)

Habitat in Párnon area: Mediterranean maquis from 0 to 700 m

Flight period in Párnon area: June and August-October in two broods

Status in Párnon area: locally common

# Range:

coastal Mediterranean areas, Africa

### **Range in Greece:**

along the coasts of most of mainland Greece and most islands, but not yet reliably recorded in N.E. Greece (Thráki), and absent from the Kikládhes Islands








# Limenitis reducta



∂ uns

Author: Staudinger, 1901

English name: Southern White Admiral

Diagnosis: upper side black with bluish sheen, and with well-defined white spots, underside dark brick red with well defined white spots. Flight characteristically gliding

Female: same as male

Similar species: none in Párnon area

Caterpillar food plant: honeysuckle (Lonicera spp.)

Habitat in Párnon area: meadows and clearings from 0 to 1700 m

Flight period in Párnon area: April to October in several broods

Status in Párnon area: common

Range: S. and part of central Europe, N.W. Africa, Asia Minor, Middle East, N. Iran

Range in Greece: whole of Greece including most major islands and minor ones close to the mainland, but absent from the Kikládhes islands





# Argynnis paphia

Author: Linnaeus, 1758

English name: Silver-washed Fritillary

**Diagnosis:** large, hindwing underside crossed by well developed silvery stripes

**Female:** same as the male but without the black horizontal stripes on the forewing upper side

**Similar species:** Argynnis pandora having the ground colour of forewing underside red instead of yellow-buff and the hindwing underside pure green rather than yellowish-green

**Variations:** some females have the upper side ground colour greenish-grey instead of orange

**Caterpillar food plant:** violets, rarely *Rubus* spp.

Habitat in Párnon area: all habitats from 100 to 1700 m

Flight period in Párnon area: June to September in a single protracted brood

Status in Párnon area: very common

**Range:** Europe, N.W. Africa, Asia Minor, Asia to China and Japan

**Range in Greece:** most of mainland Greece as well as the islands of Kérkira, Évia, Ándhros, Lésvos, Sámos, Samothráki and Thásos











# Argynnis pandora







Author: Denis & Schiffermüller, 1775

English name: Cardinal

**Diagnosis:** large, forewing upper side with two black stripes, ground colour of forewing underside red, and of hindwing underside almost uniformly pure-green

**Female:** same as the male but without the black horizontal stripes on the forewing upper side and with silvery stripes on hindwing underside

**Similar species:** Argynnis paphia having the forewing underside ground colour yellow-buff

Caterpillar food plant: violets, especially Viola tricolor

Habitat in Párnon area: meadows and clearings from 1200 to 1700 m

Flight period in Párnon area: June to September in a single brood

Status in Párnon area: locally common

**Range:** Europe, Canary Islands, N.W. Africa, Middle East

**Range in Greece:** most of mainland Greece including most of its major islands, but absent from the Kikládhes and Dhodhekánisa island groups



 1
 2
 3
 4
 5
 6
 7
 8
 9
 10
 11
 12

# Argynnis niobe

Author: Linnaeus, 1758

English name: Niobe Fritillary

### **Diagnosis:**

large or medium size, hindwing underside with many greenish-yellow to yellowish-buff spots and a row of orange-brown spots

Female: same as the male

#### Similar species:

*Argynnis adippe* being larger, having two black androconial stripes on the forewing upper side in the male, and more washed-out spotting on hindwing underside in both male and female

### Caterpillar food plant: violets

Habitat in Párnon area: clearings from 1000 to 1400 m

Flight period in Párnon area: May to July

#### Status in Párnon area: rare

#### Range:

Europe, Asia Minor, Middle East, Iran, C. Asia

#### Range in Greece:

widespread in mainland Greece, absent from the islands except Sámos









# Argynnis adippe





#### Author:

Denis & Schiffermüller, 1775

English name: High Brown Fritillary

#### **Diagnosis:**

in flight easily confused with *Argynnis niobe* and *Speyeria aglaja*, alighted may be diagnosed by the washed-out spotting of the hindwing underside

#### Female:

same as the male but without the black androconial stripes

#### Similar species:

*Argynnis niobe* not having black androconial stripes on the forewing upper side in the male and having well defined spotting on hindwing underside in both male and female

#### Caterpillar food plant:

violets, rarely Rubus spp.

#### Habitat in Párnon area:

clearings from 1000 to 1400 m

#### Flight period in Párnon area:

June to September

#### Status in Párnon area:

rare

#### Range:

Europe, Asia Minor, Asia to China and Japan

# Range in Greece:

mountain areas of mainland Greece and at low altitude areas in Northen Greece, absent from the islands, except Évia

1	2	3	4	5	6	7	8	9	10	11	12
-	_	-		-	-	-	-	-			

1900

1500

# Speyeria aglaja

#### Author:

Denis & Schiffermüller, 1775

# **English name:**

Dark Green Fritillary

#### **Diagnosis:**

large or medium size, hindwing underside with many silvery spots and without orangebrown spots

#### Female:

same as the male

#### Similar species:

Argynnis niobe and Argynnis adippe both lacking silver spotting on hindwing underside

Caterpillar food plant: violets

Habitat in Párnon area: clearings from 1000 to 1800 m

Flight period in Párnon area: June to August

Status in Párnon area: uncommon

#### Range:

Europe, N.W. Africa, Asia Minor, Asia to China and Japan

#### **Range in Greece:**

most of mainland Greece, absent from the islands except Évia









# Issoria lathonia

Author: Linnaeus, 1758

**English name:** Queen of Spain Fritillary

**Diagnosis:** hindwing underside with large silver spots

Female: same as the male

Similar species: the hindwing underside is unique among European butterflies

Caterpillar food plant: violets

Habitat in Párnon area: meadows and clearings from 200 to 1600 m

Flight period in Párnon area: April to October in three broods

Status in Párnon area: common

#### Range:

Europe, N.W. Africa, Madeira, Canary Islands, Asia Minor to Central Asia

#### Range in Greece:

most of mainland Greece, and islands of Évia, Thásos, Samothráki and Kefaloniá







12

11

8

7

9



female 🕇

male and female courtship  ${\clubsuit}$ 



# Melitaea cinxia

#### Author:

Linnaeus, 1758

# English name:

Glanville Fritillary

# **Diagnosis:**

ground colour upper side dull fulvous; hindwing both upper side and underside with a series of black spots inside fulvous band close to the wing's outer margin (see the picture)

# Female:

upper side ground colour duller than in the male, , and often with a dark, smoky overtone especially at base of wings

### Similar species:

*Melitaea didyma* and *Melitaea ornata* and *Melitaea trivia* all three of which lack the series of black spots inside the fulvous band close to the hindwing's outer margin

# Caterpillar food plant:

plantain, hawkweed and Centaurea spp.

# Habitat in Párnon area:

meadows and clearings from 200 to 1700 m

# Flight period in Párnon area:

April to July in two broods

# Status in Párnon area:

very common

# Range:

Europe, N.W. Africa, Asia Minor to Central Asia and China

# Range in Greece:

widespread in mainland Greece, absent from the islands except Kérkira, Évia and Híos





1	2	3	4	5	6	7	8	9	10	11	12
---	---	---	---	---	---	---	---	---	----	----	----

# Melitaea ornata







Author: Christoph, 1893

English name: Southern Knapweed Fritillary

#### Diagnosis:

ground colour upper side bright fulvous; black markings that are close to and near the center of forewing's outer margin displaced inwards; hindwing upper side and underside without series of black spots inside fulvous band near wing's outer margin.

**Female:** same as the male but often larger and ground colour less uniform, being often intermixed with yellowish-fulvous areas

**Similar species:** *Melitaea cinxia* having a series of black spots inside fulvous band near hindwing's outer margin; *Melitaea didyma* having on upper side bright reddish-tawny ground colour with less extensive black markings; *Melitaea trivia* being smaller, having the black spots along the margin on hindwing underside somewhat rounded rather than lunular

Caterpillar food plant: hawkweed and Centaurea spp.

Habitat in Párnon area: meadows and clearings from 200 to 1300 m

Flight period in Párnon area: April to June in a single brood

Status in Párnon area: common

**Range:** S Europe, Asia Minor, Near East, Iran, S.E. European Russia and N.W. Kazakhstan

# Range in Greece:

widespread in mainland Greece, and also present on the larger Greek islands off the western coast of Asia Minor, as well as on some small islands just off the shores of mainland Greece such as are Éyina, Póros and Spétses; absent from Kríti, Dhodhekánisa and Kikládhes islands and not yet reported from any of the Ionian islands



1900

1500

1000

500

# Melitaea didyma

Author: Esper, 1778

English name: Spotted Fritillary

**Diagnosis:** upper side ground colour red-orange bright reddish-tawny, black markings not extensive

**Female:** upper side ground colour light orangey-tawny often with light bluish-grey suffusion; black markings more extensive than in male

Similar species: Melitaea trivia being usually smaller and having ground colour on upper side dark tawny to light yellowish tawny and extensive black markings; Melitaea cinxia having a series of black spots inside fulvous band near hindwing's outer margin; Melitaea ornata having on upper side the black markings that are close to and near the center of forewing's outer margin displaced inwards

Caterpillar food plant: Centaurea and Linaria spp.

Habitat in Párnon area: meadows and clearings from 50 to 1700 m

Flight period in Párnon area: May to September in two or three broods, last brood specimens are very small

Status in Párnon area: very common

Range: Europe, N.W. Africa, Asia Minor to Central Asia and China

**Range in Greece:** widespread in mainland Greece and Pelopónnisos and in the islands of Kérkira, Évia, Sámos, Híos, Lésvos, Límnos, Samothráki and Thásos



4

5

6

7

8

9

З

1

2



12

11

# Melitaea trivia



uns

# Author:

Denis & Schiffermüller, 1775

English name: Lesser Spotted Fritillary

# **Diagnosis:**

similar to *Melitaea didyma* but usually smaller, ground colour on upper side dark tawny (1rst brood) to light yellowishtawny (2nd brood), and black markings upper side more extensive

# Female:

same as the male but usually larger and ground colour on upper side rarely intermixed with yellowish areas

# Similar species:

Melitaea didyma usually being larger, and having ground colour on upper side bright reddish-tawny in male and light orangey-tawny often with light bluish-grey suffusion in female

# Caterpillar food plant:

Verbascum spp.

# Habitat in Párnon area:

meadows from 1200 to 1800 m

# Flight period in Párnon area:

May to October in two broods

# Status in Párnon area:

rare

#### Range:

widespread in Europe but absent from the British Isles, N.E. Greece, eastern Aegean islands, Spain and Portugal; also present in Kyrgyzstan, Kazakhstan, Mongolia and Amur but absent from Asia Minor and the Near Fast

# Range in Greece:

western and central part of N. Greece, central and southern part of mainland Greece, Pelopónnisos, as well as islands of Évina, and Évia

1	2	3	4	5	6	7	8	9	10	11	12
---	---	---	---	---	---	---	---	---	----	----	----



# Libythea celtis

Author: Laicharting, 1782

English name: Nettle-tree Butterfly

# Diagnosis:

forewing with a peculiar square apex, hindwing indented, palpi very long (see picture)

Female: same as the male

Similar species: none in Europe

Caterpillar food plant: hackberry (*Celtis australis*)

Habitat in Párnon area: woods with hackberry trees from 700 to 1300 m

# Flight period in Párnon area:

June to September in a single brood and wintered specimens in March and April

# Status in Párnon area:

locally common

# Range:

Europe, N.W. Africa, Asia Minor to Japan

# Range in Greece:

widespread in mainland Greece and also present on islands of Kriti, Kérkira, Lésvos and Thásos













# Danaus chrysippus

Author: Linnaeus, 1758

English name: Plain Tiger

**Diagnosis:** an unmistakable large butterfly with a characteristic leisurely sailing flight

**Female:** same as the male but lacking on hindwing the large black spot right below wing's center

Similar species: none in Greece

### Caterpillar food plant:

Asclepiadaceae spp., including *Gomphocarpus fruticosus* 

### Habitat in Párnon area:

semi-cultivated meadows close to river beds at sea level

Flight period in Párnon area: August to October

Status in Párnon area: locally common

#### Range:





Africa, Canary Islands, tropical and subtropical Asia, with scattered, most often temporary colonies in the Mediterranean coastal and especially river delta regions

#### Range in Greece:

widespread in mainland Greece and Pelopónnisos and also recorded on some Ionian, Kikládhes, central and eastern Aegean islands as well as on Kríti Island and the Dhodhekánisa islands







# Melanargia larissa

### Author:

Geyer, 1828

English name: Balkan Marbled White

# Diagnosis:

white ground colour with a complicate pattern of black spots and lines

# Female:

same as the male but underside markings brown instead of black

Similar species: none in the Parnon area

**Caterpillar food plant:** *Poa* spp.and other grasses

Habitat in Párnon area: meadows from 500 to 1800 m

Flight period in Párnon area: May to August in one brood

Status in Párnon area: common

# Range:

Balkans, Asia Minor, Near East

# Range in Greece:

2

1

widespread in mainland Greece and Pelopónnisos, and also recorded on the Greek islands of Kérkira, Ídhra, Éyina, Évia, Ándhros, Síros, Lésvos, Límnos and Samothráki; absent from most Kikládhes and all Dhodhekánisa islands as well as from Kríti Island







# Hipparchia fagi





Author: Scopoli, 1763

English name: Woodland Grayling

Diagnosis: large, upper side dark brown, both wings with a broad whitish marginal band, the forewing's band with a greyishbrown powdering

**Female:** same as the male but whitish band clearer and more intense white

#### Similar species:

*Hipparchia syriaca: see* next page; *Brintesia circe* having the white band pure white and with well defined borders

**Caterpillar food plant:** *Festuca* spp., *Bromus* spp. and other grasses

Habitat in Párnon area: woodland from 500 to 1700 m

Flight period in Párnon area: June to August in one brood

Status in Párnon area: common

Range: S. and C. Europe, Western Asia

#### Range in Greece:

widespread in mainland Greece and Pelopónnisos, and also recorded on the islands of Kefaloniá, Évia, and Thásos



# Hipparchia syriaca

Author: Staudinger, 1871

English name: Eastern Rock Grayling

**Diagnosis:** externally looking same as *Hipparchia fagi* 

**Female:** same as the male but whitish band clearer and more intense white

#### Similar species:

it is impossible to separate *Hipparchia fagi* from *Hipparchia syriaca* other than by structural characters that can be observed only under a microscope

Caterpillar food plant: several grasses

Habitat in Párnon area: woodland from 100 to 1200 m

Flight period in Párnon area: June to September in one brood

#### Status in Párnon area: not common

#### Range:

Balkans, Asia Minor, Caucasus, N. Iran, Middle East

#### **Range in Greece:**

widespread in mainland Greece and Pelopónnisos but absent from most islands except Kérkira, Kefaloniá, Évia, Ródhos, Sámos, Híos, Lésvos, Samothráki and Thásos











# Hipparchia statilinus









Q ups



Author: Hufnagel, 1766

# English name: Tree Grayling

#### **Diagnosis:**

upper side completely blackish brown except for two black spots close to the forewing outer margin, on forewing underside the spot arrangement is the same but the spots are large and yellow-ringed

# Female:

upper side ground colour lighter brown and spotting more intense

#### Similar species:

Hipparchia fatua having the dark line close to the outer margin of the hindwing more pronounced on both sides (see pictures) and having two dark zig-zag lines across the hindwing underside

#### Caterpillar food plant:

Bromus spp. and other grasses

#### Habitat in Párnon area:

woodland from 400 to 1200 m

#### Flight period in Párnon area:

July to September in one brood

#### Status in Párnon area:

not common

#### Range:

C. and S. Europe, N Africa, Asia Minor, N. Wilran

#### **Range in Greece:**

widespread in mainland Greece and Pelopónnisos, and also recorded on the islands of Kérkira, Kefaloniá, Kíthira, Évia, and Thásos

1	2	3	4	5	6	7	8	9	10	11	12
---	---	---	---	---	---	---	---	---	----	----	----

# Hipparchia fatua

Author: Freyer, 1843

English name: Freyer's Grayling

# **Diagnosis:**

very close to Hipparchia statilinus

# Female:

upper side of the forewing with white, black and yellow small spots close to the outer margin

# Similar species:

*Hipparchgia statilinus* having the dark line close to the outer margin of the hindwing less evident or missing (see pictures) and having only one dark zig-zag line across the hindwing underside

Caterpillar food plant: various grasses

Habitat in Párnon area: woodland from 0 to 800 m

# Flight period in Párnon area:

June to September in one brood

# Status in Párnon area:

not common

#### Range:

Balkans, Asia Minor, Middle East, N. Iran

#### Range in Greece:

widespread in mainland Greece and in a great number of islands, absent from Kríti



1         2         3         4         5         6         7         8         9         10         11	12
---	----

# Hipparchia senthes







Author: Fruhstorfer, 1908

English name: Balkan Grayling

#### Diagnosis:

upper side brown with some yellow-orange areas, underside of hindwing mottled grey and white, underside of forewing light yellow-orange with black markings

#### Female:

upper side light orange areas more strongly tinted and having sharper edges

Similar species: none in the Párnon area

Caterpillar food plant: various grasses

Habitat in Párnon area: woodland from 200 to1700 m

Flight period in Párnon area: June to August in one brood

### Status in Párnon area: common

Range: S. Italy, S. Balkans, W. and C. Turkey

#### Range in Greece:

widespread in mainland Greece and in many islands, absent from Ionian and Dhodhekánisa islands, as well as from Kríti



# Satyrus ferula

Author: Fabricius, 1793

English name: Great Sooty Satyr

**Diagnosis:** male upper side completely dark brown except for two black round spots centered by a white small pupil, close to the forewing outer margin

**Female:** upper side ground colour lighter brown with a broad yellowish band across the wings, underside lighter

Similar species: none in the Párnon area

**Caterpillar food plant:** *Festuca* spp. and other grasses

Habitat in Párnon area: woodland from 800 to 1700 m

Flight period in Párnon area: July to September in one brood

Status in Párnon area: common

**Range:** S Europe, N Africa, Asia Minor, Middle east, Central Asia to China

**Range in Greece:** widespread in mainland Greece and also recorded from the islands of Ídhra and Éyina









# Pseudochazara graeca



∂ ups



Author: Staudinger, 1870

English name: Grecian Grayling

### Diagnosis:

upper side ground colour greysh-brown with a broad yellowish-orange band across the wings

#### Female:

larger than the male, upper side bands lighter coloured, often slightly wider and sharper

### Similar species:

the female of *Satyrus ferula* being larger, with a lighter upper side ground colour

# Caterpillar food plant:

grasses



# Habitat in Párnon area: a mountain butterfly, dry grassy

slopes from 1400 to 1900 m

Flight period in Párnon area: July and August in one brood

Status in Párnon area: locally common

Range: Southern Balkans



#### Range in Greece:

mountains of southern and central mainland Greece and of Pelopónnisos; absent from all islands except that of Évia



# Pseudochazara amalthea

# Author: Frivaldszky, 1845

English name: Balkan White-banded Grayling

### **Diagnosis:**

upper side ground colour dark grey-brown with across the wings a broad white band, tinged with orange on the hindwing

### Female:

larger than the male, upper side more brownish, white band less developed

### Similar species:

*Brintesia circe* and *Chazara briseis* both having the white band narrower and not tinged with orange

#### Caterpillar food plant: grasses

Habitat in Párnon area: dry grassy slopes from 700 to 1500 m

Flight period in Párnon area: July and August in one brood

# Status in Párnon area: uncommon

Range: Southern Balkans

# Range in Greece:

mountains of mainland Greece except Thráki; also present in Pelopónnisos and the islands of Kríti and Évia











2 9 11 12 1 З 4 5 6 7 8 10

# Brintesia circe





Author: Fabricius, 1775

English name: Great Banded Grayling

#### **Diagnosis:**

large, upper side ground colour black with a white band across the wings

Female: same as male

### Similar species:

briseis whose underside Chazara ground colour is lighter and the white band broader, and Hipparchia fagi whose white band is powdered with greyish-brown and has suffused borders

# Caterpillar food plant:

Bromus spp., Lolium spp. and other grasses

# Habitat in Párnon area:

woodland and clearings from 500 to 1800 m

# Flight period in Párnon area:

from mid June to August in one brood

#### Status in Párnon area:

common

#### Range:

C. and S. Europe, Asia Minor to Central Asia

# **Range in Greece:**

widespread in mainland Greece and Pelopónnisos, and also recorded on the islands of Évia. Kèrkira and Thásos



1900

1500

1000

# Chazara briseis

# Author:

Linnaeus, 1764

### **English name:**

The Hermit

# **Diagnosis:**

large, upper side dark brown with large irregular white bands across the wings

#### Female:

upper side white bands more developed

#### Similar species:

Hipparchgia fagi having the white bands powdered with brown on the forewing and Brintesia circe having the underside ground colour darker with the white band narrower and more regular

# Caterpillar food plant:

Sesleria spp. and other grasses

# Habitat in Párnon area:

dry grassy slopes from 600 to 1500 m

# Flight period in Párnon area:

late June to September in one brood

#### Status in Párnon area: common

# Range:

C. and S. Europe, N. W. Africa, Asia Minor, Central Asia to China

# **Range in Greece:**

widespread in mainland Greece, absent from the islands









# Arethusana arethusa















♀ uns

Author: Denis & Schiffermüller, 1775

**English name:** False Grayling

# **Diagnosis:**

upper side ground colour brown with a series of orange spots close to the wing margins

Female: ground colour and orange spots lighter than in the male

Similar species: none in the Párnon area

Caterpillar food plant: Festuca spp, Poa spp. and other grasses

Habitat in Párnon area: clearings from 1300 to 1800 m

Flight period in Párnon area: from July to August in one brood

#### Status in Párnon area: rare

Range:

S. and C. Europe, N.W. Africa, Asia Minor, Central Asia to N.W. China

12

# **Range in Greece:**

mountainous areas of mainland Greece and Pelopónnisos, absent from the islands



1

# Maniola jurtina

### Author:

Linnaeus, 1758

# **English name:**

Meadow Brown

# **Diagnosis:**

male upper side dark brown with one black round spot at forewing apex, female upper side brown with large orange patches

# Female:

upper side ground colour lighter with a broad orange patch on the forewing and a smaller one on the hindwing

### Similar species:

Hyponephele lycaon and Hyponephele lupinus both without black spots on the hindwing underside close to the wing margin

# Caterpillar food plant:

Poa spp. and other grasses

# Habitat in Párnon area:

meadows and clearings from 0 to 1500 m

# Flight period in Párnon area:

from May to September in one brood

# Status in Párnon area:

very common

# Range:

Europe, N.W. Africa, Asia Minor, Caucasus, Middle East, Central Asia

# Range in Greece:

whole of Greece including most islands except eastern Aegean and Dhodhekánisa islands







103



# Hyponephele lycaon



∂ ups



d'uns



Author: Rottemburg, 1775

English name: Dusky Meadow Brown

# **Diagnosis:**

male upper side brown with one black spot close to the forewing apex, and a dark stripe (androconial patch) starting from the wing base, female forewing upper side with two black spots

# Female:

upper side of the forewing yellow with brown dusting at base and two black spots close to the outer margin

### Similar species:

*Hyponephele lupinus* having the male with the androconial patch wider and more evident (see picture) and the female with darker forewing upper side. *Maniola jurtina* having some black spots on the hindwing underside close to the wing margin

# Caterpillar food plant:

Poa spp., Festuca spp. and other grasses

# Habitat in Párnon area:

meadows and clearings from 500 to 1100 m

# Flight period in Párnon area:

from late May to August in one brood

# Status in Párnon area:

not common

#### Range:

C. and S. Europe, Asia Minor, Caucasus and most of temperate Asia



**Range in Greece:** widespread in mainland Greece and Pelopónnisos, absent from the islands except Évia

1	2	3	4	5	6	7	8	9	10	11	12
---	---	---	---	---	---	---	---	---	----	----	----

# Hyponephele lupinus

#### Author:

Costa, 1836

English name: Oriental Meadow Brown

# **Diagnosis:**

very close to *Hyponephele lycaon*, upper side ground colour lighter

# Female:

forewing upper side with two black spots inside a yellowish band close to the wing margin

### Similar species:

*Hyponephele lycaon* having the male with the androconial patch slimmer and less evident (see picture) and the female with forewing upper side almost completely yellow. *Maniola jurtina* having some black spots on the hindwing underside close to the wing margin

# Caterpillar food plant:

grasses of unknown species

# Habitat in Párnon area:

meadows and clearings from 500 to 1800 m

# Flight period in Párnon area:

from June to September in one brood

# Status in Párnon area:

not common

# Range:

1

S. and C. Europe, N.W. Africa , Asia Minor, Middle East, C. Asia

# Range in Greece:

2

З

widespread in mainland Greece and Pelopónnisos, and recorded also from the islands of Kríti, Kefaloniá, Kíthira, Évia, Thásos, Ródhos, Tílos, Kos and Lésvos

4

5











# Coenonympha pamphilus

#### Author:

Linnaeus, 1758

# English name:

Small Heath

# **Diagnosis:**

very small, upper side light orange brown with a dark regular margin and a small round black spot close to apex of the forewing

Female: same as male

Similar species: none in the Párnon area

**Caterpillar food plant:** several species of grasses

Habitat in Párnon area: grassy slopes from 300 to 1500 m

# Flight period in Párnon area:

from April to September in several broods

# Status in Párnon area:

very common

#### Range:

Europe, N.W. Africa, western and central Asia to Mongolia

#### Range in Greece:

widespread in mainland Greece and Pelopónnisos, and recorded also from the Ionian islands and those of Évia, Skiáthos, Thásos and Lésvos





∂ uns

# Pararge aegeria







Author: Linnaeus, 1758

English name: Speckled Wood

# **Diagnosis:**

upper side brown with many small yellow spots and one black spot close to forewing apex

Female: same as male

Similar species: none in the Párnon area

**Caterpillar food plant:** *Poa* spp.and other grasses

Habitat in Párnon area: woodland and clearings from 100 to 1200 m

Flight period in Párnon area: from March to September in three broods

#### Status in Párnon area: common

Range: most of Europe, N.W. Africa , Asia Minor, Caucasus, Middle East

#### Range in Greece:

widespread in mainland Greece and Pelopónnisos, and also recorded from the islands of Kérkira, Kíthira, Kríti, Ándhros, Évia, Skiáthos, Skópelos, Samothráki, Thásos, Lésvos, Sámos, Kos and Kárpathos


### Kirinia roxelana

### Author:

Cramer, 1777

### English name:

Lattice Brown

### **Diagnosis:**

large, upper side brown with a series of round black spots circled with yellow close to the outer margin of the hindwing, more evident on the underside

### Female:

upper side of the forewing with the orange patch more developed and with white spots close to the wing costa

Similar species: none in the Párnon area

**Caterpillar food plant:** *Poa* spp. and other grasses

### Habitat in Párnon area:

sparse woodland from 200 to 1200 m

### Flight period in Párnon area:

from April to September in a single brood

### Status in Párnon area:

rare

### Range:

S.and C. Balkans, Asia Minor, Middle East, N. W. Iran

### Range in Greece:

widespread in mainland Greece and Pelopónnisos, and also recorded from the islands of Kérkira, Kíthira, Évia, Skiáthos, Thásos, Samothráki, Lésvos, Híos, Sámos, Ikaría, Nísiros, Sími and Ródhos









1 2 3 4 5 6 7 8 9 10 11 12
----------------------------

### Lasiommata maera







∂ uns



♀ ups



Author: Linnaeus, 1758

English name: Large Wall Brown

### Diagnosis:

upper side dark brown with one black, white pupilled spot close to the forewing apex and three smaller spots close to the outer margin of the hindwing

Female: upper side of the forewing with a broad orange-yellow suffusion

Similar species: Lasiommata megera smaller, having upper side ground colour orange

Caterpillar food plant: Festuca spp., Nardus spp. and other grasses

Habitat in Párnon area: woodland and clearings from 200 to 1200 m

Flight period in Párnon area: from April to October in two broods

### Status in Párnon area: common

### Range:

from Europe and N.W. Africa to C. Asia and W. China

### Range in Greece:

widespread in mainland Greece and Pelopónnisos, and also recorded from the islands of Kérkira. Zàkinthos, Kefaloniá, Spétses, Éyina, Évia, Samothráki, Lésvos, Híos, Sámos, Pátmos, Kos, Nísiros, Tílos, Sími and Ródhos





### Lasiommata megera

### Author: Linnaeus, 1767

English name: Wall Brown

### **Diagnosis:**

upper side ground colour orange with dark brown linear markings, one black, white pupilled spot close to the forewing apex and three smaller spots close to the outer margin of the hindwing

Female: upper side dark brown linear markings less developed

### Similar species:

Lasiommata maera larger, having the male with upper side almost completely dark brown and female darker orange than in Lasiommata megera

### Caterpillar food plant:

*Festuca* spp., *Brachypodium* spp. and other grasses

### Habitat in Párnon area:

woodland and clearings from 0 to 1600 m

### Flight period in Párnon area:

from April to October in three or four broods

Status in Párnon area: very common

### Range:

Europe, N.W. Africa , Asia Minor, Caucasus, Middle East

### Range in Greece:

whole of Greece, including all islands







0	ur	าร

3 ups



1 2 3 4 5 6 7 8 9 10 11 12



### family Lycaenidae

A family of small size butterflies, which all around the world includes over six thousand species. The family Lycaenidae is divided into eight subfamilies. The following three subfamilies are present in the Párnon area:

### Lycaeninae:

the upper side is in most species different tones of gleaming red-gold with more or less developed dark spots, some species are dark brown. A few species have a short tail

### Theclinae:

the upper side is uniformly dark brown, the underside is grey with more or less developed small orange spots close to the margin of the hindwing and a black or blue spot at the anal angle. The hindwings have well developed tails

### Polyommatinae:

the largest subfamily of Lycaenidae with over 80 species in Europe and 25 species in the Párnon area. Males upper side usually blue, females usually brown





### Lycaena phlaeas

Author: Linnaeus, 1761

English name: Small Copper

### **Diagnosis:**

very small, upper side of the forewing gleaming red-gold with many black spots and a dark grey margin

### Female:

larger than the male, upper side of the forewing brighter orangegold with black spots less developed

Similar species: none in the Párnon area

### Variations:

summer specimens have often the forewing upper side suffused with brown; some specimens have a row of blue spots on the hindwing upper side

### Caterpillar food plant:

Polygonum spp.and Rumex spp.

### Habitat in Párnon area:

meadows and clearings from 0 to 1800 m

### Flight period in Párnon area:

from March to October in four broods

### Status in Párnon area: very common

### Range:

Europe, N. and C. Africa, temperate and subtropical Asia to China, N. America

### Range in Greece:

2

1

whole of Greece, including all islands

З



4

5

6

7

8













11

10

9

# Lycaena thersamon









Author: Esper, 1784

English name: Lesser Fiery Copper

### **Diagnosis:**

male upper side of the forewing pale gleaming red gold with narrow black margins

**Female:** upper side of the forewing bright orange-red with many black spots

**Similar species:** *Lycaena thetis* having in the male the upper side of both wings completely fiery red gold and the underside of the hindwing with little developed black spots

Variations: summer specimens have a short tail

Caterpillar food plant: Polygonum spp.and Rumex spp.

Habitat in Párnon area: meadows from 800 to 1500 m

Flight period in Párnon area: April-May and July-August in two broods

Status in Párnon area: very rare

Range: C. and E. Europe, Asia Minor, Caucasus, Middle East, temperate W. and C. Asia

### Range in Greece:

widespread in mainland Greece, Pelopónnisos and also present in Évia, Thásos, and certain Sporádhes and Dhodhekánisa islands



### Lycaena tityrus

Author: Poda, 1761

English name: Sooty Copper

### **Diagnosis:**

male upper side dark brown with a row of small orange spots along the wing margin, male underside ground colour light yellowish-grey

### Female:

upper side of the forewing orange-gold with many black spots, , underside ground colour yellow-orange

**Similar species:** many Lycaenidae species have the upper side dark brown with orange spots but the anal angle of their hindwings is rounded, while in *Lycaena tityrus* at the anal angle there is a protrusion like a vestigial tail (see pictures)

**Caterpillar food plant:** *Rumex* spp.

Habitat in Párnon area: meadows from 600 to 1400 m

### Flight period in Párnon area:

April to September in two broods

### Status in Párnon area: common

### Range:

C. and S. Europe, Asia Minor, N. Iran, temperate W. Asia

### Range in Greece:

widespread in the mountain areas of mainland Greece and Pelopónnisos and also present in Évia and Sámos islands













1     2     3     4     5     6     7     8     9     10     11     12
--



### Lycaena thetis

Author: Klug, 1834

English name: Fiery Copper

### **Diagnosis:**

male upper side of both wings fiery red-gold with narrow black margins widening at forewing's apex, underside of the hindwing light grey with dark spots little developed

### Female:

female upper side orange-gold with many black spots

Similar species: Lycaena thersamon having in the male the upper side of the hindwing with a dark shade and the underside of the hindwing with well developed black spots

Caterpillar food plant: Acantholimon androsaceum (see picture below)

Habitat in Párnon area: mountain meadows from 1700 to1900 m

Flight period in Párnon area: July-August, one brood

Status in Párnon area: very local

Range: Greece, Asia Minor, Middle East

### Range in Greece:

found only on a few mountains in southern mainland Greece and Pelopónnisos







# Satyrium ilicis





Author: Esper, 1779

English name: Ilex Hairstreak

### **Diagnosis:**

upper side uniformly dark brown, hindwings with a short tail, underside of the hindwings with a row of faint orange spots close to the wing margin and a row of white linear spots crossing the wing

### Female:

same as the male but occasionally with an orange dash on the upper side of the forewing

**Similar species:** *Satyrium spini* having on the underside of the hindwings a blue spot at the anal angle (see picture)

Caterpillar food plant:

Quercus spp.

Habitat in Párnon area: clearings from 400 to 1500 m

Flight period in Párnon area: May to July in one brood

Status in Párnon area: common

**Range:** Europe, Asia Minor, Caucasus, Middle East, N.W. Kazakhstan

### Range in Greece:

widespread in mainland Greece, Pelopónnisos and in a good number of islands, but absent from Kríti, Kárpathos, Ródhos and the Kikládhes islands





 1
 2
 3
 4
 5
 6
 7
 8
 9
 10
 11
 12

# Satyrium spini

Author: Denis & Schiffermüller, 1775

English name: Blue-spot Hairstreak

### **Diagnosis:**

upper side uniformly dark brown, hindwings with a short tail, underside of the hindwings with a row of faint orange spots close to the wing margin and a large blue spot at anal angle

Female: same as the male

**Similar species:** *Satyrium ilicis* not having on the underside of the hindwings the blue spot at the anal angle (see picture)

Caterpillar food plant: Rhamnus spp.and Prunus spp.

Habitat in Párnon area: clearings from 100 to 1300 m

Flight period in Párnon area: May to July in one brood

Status in Párnon area: common

**Range:** Europe, Asia Minor, Caucasus, Middle East, N. Iran, S. Turkmenistan, W. Afghanistan

### Range in Greece:

widespread in mainland Greece, Pelopónnisos and in the islands of Zákinthos, Kíthira, Spétses, Évia, Híos and Sámos; absent from Kríti, Kárpathos, Dhodhekánisa and Kikládhes islands









### Favonius quercus









Author: Linnaeus, 1758

English name: Purple Hairstreak

### Diagnosis:

male upper side uniformly dark brown with a purple sheen, hindwings with a short tail, underside ground colour light grey with a white line across the wings close to the wing margin

### Female:

upper side of the forewing with two gleaming blue spots along the inner margin

### Similar species:

*Satyrium ilicis* and *Satyrium spini* both having the upper side brown, without purple sheen and underside ground colour darker

Caterpillar food plant: oak and ash trees

Habitat in Párnon area: clearings from 300 to 1400 m

#### Flight period in Párnon area: July to September in one brood

Status in Párnon area: locally common

Range: Europe, N.W. Africa , S.W. Asia

### Range in Greece:

widespread in mainland Greece, Pelopónnisos and also found in the islands of Kefaloniá, Kríti, Évia, Samothráki, Lésvos and Sámos; absent from the Dhodhekánisa, Kikládhes, Sporádhes and Límnos islands



## Callophrys rubi

Author: Linnaeus, 1758

English name: Green Hairstreak

**Diagnosis:** underside almost completely green

Female: same as the male

Similar species: none in Greece

Caterpillar food plant: gorse, broom, ling and *Vaccinium* spp.

Habitat in Párnon area: clearings and bushes from 0 to 1200 m

Flight period in Párnon area: March to May in one brood

Status in Párnon area: common

Range: Europe, N.W. Africa, Asia Minor, N. Central Asia

### Range in Greece:

widespread in mainland Greece, Pelopónnisos and most islands but absent from Kríti









10

9

8

7



12

# Lampides boeticus









Author: Linnaeus, 1767

English name: Long-tailed Blue

### **Diagnosis:**

hindwings with a long tail; male upper side dull blue with two large black spots at anal angle of the hindwing

### Female:

upper side brown with a blue suffusion in the basal and median area of wings

### Similar species:

*Leptotes pirithous*: smaller, having shorter tails and the underside of the hindwing without a white band (see picture)

### Caterpillar food plant:

several species of Leguminosae

Habitat in Párnon area: clearings from 0 to 1500 m

Flight period in Párnon area: June to September in two broods

### Status in Párnon area: not common

Range: Europe, Africa, Asia, Australia

### Range in Greece:

widespread throughout mainland Greece, Pelopónnisos and the islands



### Leptotes pirithous

Author: Linnaeus, 1767

English name: Short-tailed Blue

### **Diagnosis:**

hindwings with a short tail; male upper side dull blue with two small black spots at anal angle of the hindwing

### Female:

upper side brown with a blue suffusion in the basal and median area of wings

### Similar species:

*Lampides boeticus*: larger, having longer tails and on the underside of the hindwing a white band close to the wing margin (see picture of *Lampides boeticus*)

### Caterpillar food plant:

several species of small Leguminosae

Habitat in Párnon area: clearings from 0 to 1500 m

### Flight period in Párnon area:

May to October in several broods

Status in Párnon area: not common

### Range:

S and C Europe, Asia Minor, Middle East, C. Asia to India, Africa, Arabian peninsula

### Range in Greece:

widespread throughout mainland Greece, Pelopónnisos and the islands













### Cacyreus marshalli

Author: Butler, 1898

English name: Geranium Bronze

### **Diagnosis:**

upper side uniformly dark brown, hindwings with a tail; underside light brown with a complicated pattern of darker brown and white markings

Female: same as the male

Similar species: none in Europe

Caterpillar food plant: Pelargonium spp. and Geranium spp.

Habitat in Párnon area: flowery gardens from 0 to 500 m

Flight period in Párnon area: April to November in several broods

Status in Párnon area: locally common

### Range:

S. Africa and, through accidental introduction and subsequent expansion, S. and C. Europe, most major Mediterranean Islands, N.W. Africa, Madeira, Canary Islands, W. parts of Asia Minor, coastal parts of Middle East

### Range in Greece:

many scattered colonies in mainland Greece, Pelopónnisos and a good number of islands including Kríti





# Cupido osiris





o uns





Author:

Meigen, 1829

### English name:

Osiris Blue

### **Diagnosis:**

male upper side dark blue, underside light grey without orange spots at the margins

### Female:

ups ground colour brown with a blue suffusion at the wing base

### Similar species:

the female is similar to *Cupido minimus* but larger; *Cyaniris helena* having orange spots at the anal angle of the hindwing underside

### Caterpillar food plant:

Onobrychis spp. and other Leguminosae

Habitat in Párnon area: meadows from 900 to1700 m

#### Flight period in Párnon area: May to July, one brood

### Status in Párnon area: rare

### Range:

S. Europe, Turkey, Central Asia

### Range in Greece:

mountain areas in Greece, Pelopónnisos, Límnos and Híos islands



# Cupido minimus

Author: Fuessly, 1758

English name: Little Blue

### **Diagnosis:**

very small, upper side dark brown the male having a suffusion of blue scales in the basal area, underside light grey with a regular row of small black spots across the wings

### Female:

same as the male but without the blue scales suffusion on the upper side

Similar species: the female of *Cupido osiris* being larger

Caterpillar food plant: small Leguminosae

Habitat in Párnon area: meadows and clearings from 300 to 1500 m

Flight period in Párnon area: May to July, one brood

Status in Párnon area: common

Range: Europe, temperate Asia to China

### Range in Greece:

widespread in mainland Greece, Pelopónnisos, as well as the islands of Kérkira and Kos







1 2 3 4 5 6 7 8 9 10 11 1
---------------------------

### Celastrina argiolus



∂ ups





♀ups



♀ uns

Author:

Linnaeus, 1758

**English name:** Holly Blue

### **Diagnosis:**

male upper side light blue, underside light grey with many small black spots

### Female:

upper side dull blue with a broad black band along the forewing margin

Similar species: none in Greece

Caterpillar food plant: ivy, holly and many other shrubs and trees

Habitat in Párnon area: meadows and clearings from 0 to 1700 m

Flight period in Párnon area: April to September in several broods

Status in Párnon area: common

Range: Europe, N. W. Africa, Asia to China and Japan

### Range in Greece:

widespread in mainland Greece, Pelopónnisos and the majority of the islands



# Glaucopsyche alexis

Author: Poda, 1761

English name: Green-underside Blue

### **Diagnosis:**

underside light grey with a bent row of black spots on the forewing and a green suffusion from the base to the middle of the hindwing

### Female:

upper side dark brown with a blue suffusion at the base of the wings

Similar species: none in the Párnon area

Caterpillar food plant: Astragalus spp., Cystus spp. and other Leguminosae

Habitat in Párnon area: meadows and clearings from 300 to 1500 m

Flight period in Párnon area: March to May, one brood

Status in Párnon area: common

Range: Europe, N. W. Africa, Turkey, W. and C. temperate Asia

### Range in Greece:

2

1

widespread in mainland Greece, Pelopónnisos and in most islands, absent from Kríti



4

6

5

7

3



9

8







♀ups



12

11

### Pseudophilotes bavius







∂ uns



♀ ups



♀ uns

132

Author: Eversmann, 1832

English name: Bavius Blue

#### **Diagnosis:**

male upper side dark blue with black margin, hindwing with orange spots at the anal angle

#### Female:

upper side strongly suffused with black, hindwing orange spots more developed

#### Similar species:

*Pseudophilotes vicrama* having the male upper side lighter blue without orange spots at the anal angle of the hindwing

### Caterpillar food plant:

*Salvia* spp.

Habitat in Párnon area: meadows from 800 to 1200 m

### Flight period in Párnon area:

April - May, one brood

#### Status in Párnon area: very rare

#### Range:

Balkans, Ukraine, Turkey, Iran, Syria, N.W. Kazakhstan, S. European Russia

#### Range in Greece:

very local mostly on mountains of mainland Greece and Pelopónnisos



# Pseudophilotes vicrama

Author: Moore, 1865

English name: Eastern Baton Blue

### **Diagnosis:**

male upper side light blue with a row of black spots along the margin of the hindwing, underside of the hindwing with a row of orange spots all along the margin

### Female:

upper side dark brown with a blue suffusion at the base of the wings

### Similar species:

*Pseudophilotes bavius* having the male upper side darker blue with orange spots at the anal angle of the hindwing

Caterpillar food plant:

*Thymus* and *Satureja* spp.

Habitat in Párnon area: meadows and clearings from 300 to 1200 m

Flight period in Párnon area: April - May, one brood

### Status in Párnon area: rare

### Range:

C. and E. Europe (except northern part), E. and C. temperate and subtropical W. Asia

### Range in Greece:

widespread in mainland Greece, Pelopónnisos and in most islands















photos by Wendy Copage

1	2	3	4	5	6	7	8	9	10	11	12

# Plebejus sephirus









Author: Frivaldzky, 1835

### English name: Zephyr Blue

### **Diagnosis:**

male upper side blue, hindwing with black spots at the anal angle, underside of the forewing without the "*icarus*" spot (see below), hindwing underside with a white band inside and all along orange lunules

### Female:

upper side dark brown, hindwing with a series of well developed orange spots

### Similar species:

*Polyommatus icarus*: male lacking black spots on upper side of hindwings, both genders having the "*icarus* spot" on underside of forewing (see image below) and lacking the white band on underside of hindwing, having instead in its place a single wedge-shaped white dash; *Polyommatus thersites*: male darker blue upper side without any black spots on hindwing, both genders having a wedge-shaped white dash on hindwing underside

Caterpillar food plant: Astragalus spp.

Habitat in Párnon area: meadows from 1000 to 1400 m

Flight period in Párnon area: June - July, one brood

Status in Párnon area: rare

Range: Balkans through Asia Minor to the Caucasus

Range in Greece: local on mountains of mainland Greece and Pelopónnisos

8

7



10

11

12

9

black spot in the cell



P. icarus

2

З

5

6

4

134

### Plebejus argus

Author: Linnaeus, 1758

English name: Silver-studded Blue

### **Diagnosis:**

very small; male upper side blue with a broad black margin along the wings

### Female:

upper side dark brown, hindwing with a series of orange spots

### Similar species:

Plebejus sephirus: male upper side lighter blue with narrow black margins, both genders much larger

Caterpillar food plant: many species of Fabaceae, Ericaceae and Cistaceae

Habitat in Párnon area: mountain meadows from 1600 to1900 m

### Flight period in Párnon area:

June to August, one brood

Status in Párnon area: locally common

### Range:

temperate and subtropical parts of Europe and Asia

### Range in Greece:

widespread in mainland Greece, more localized, but abundant where found, in Pelopónnisos. Absent from all islands except Kérkira, Évia, Skiáthos and Thásos













♀ uns





10

7

8

9

12

### Aricia agestis





Author: Denis & Schiffermüller, 1775

### English name: Brown Argus

### **Diagnosis:**

small, upper side dark brown with a regular row of orange spots along the wing margins, underside of the forewing without the *"icarus"* spot (see under *Polyommatus icarus*)

### Female:

same as the male

### Similar species:

*Aricia artaxerxes* having on the upper side the row of orange spots less developed; the female of *Polyommatus icarus* being larger and having on underside of the forewing the "*icarus*" spot (see page 144)





### Caterpillar food plant:

various species of Geraniaceae

Habitat in Párnon area: meadows and clearings from 400 to 1800 m

### Flight period in Párnon area:

April to August in several broods

Status in Párnon area: common

#### **Range:** Europe, N.W. Africa, temperate Asia

### Range in Greece:

widespread in mainland Greece, Pelopónnisos and in a good number of islands





### Aricia artaxerxes

Author: Fabricius, 1793

English name: Mountain Argus

**Diagnosis:** very close to *Aricia agestis* 

Female: same as the male

Similar species: Aricia agestis having on the upper side the row of orange spots more developed

Caterpillar food plant: Geranium spp. and Helianthemum spp.

Habitat in Párnon area: mountain meadows from 1300 to1800 m

Flight period in Párnon area: June - July, one brood

Status in Párnon area: rare

Range: Europe, Turkey, temperate Asia

Range in Greece: mountain areas in mainland Greece and Pelopónnisos







### Aricia anteros



8 ups



uns



♀ ups



ີ uns

### Author:

Freyer, 1838

### **English name:**

Blue Argus

### **Diagnosis:**

male upper side light greenish-blue with a wide dark margin

### Female:

upper side ground colour brown with a row of orange spots along the margin

### Similar species:

Lysandra coridon larger and having on underside of the forewing the "*icarus*" spot (see below)

### Caterpillar food plant: various Geraniaceae

Habitat in Párnon area: mountain meadows from 1500 to1900 m

Flight period in Párnon area: June to September, two broods

### Status in Párnon area:

very local

### Range:

Balkans, Turkey, Caucasus, N. Iran

### black spot in the cell

### Range in Greece:

mountain areas in mainland Greece and Pelopónnisos, but absent from all islands except Évia



## Meleageria daphnis

Author: Denis & Schiffermüller, 1775

English name: Meleager's Blue

### Diagnosis:

male upper side light greyish-blue with a black marginal border at wing margin, underside of the hindwing without orange spots; hindwing scalloped at anal angle

**Female:** upper side darker blue with a wide black margin extending to the wing base in the forewing

Variations: in northern Greece female wings powdered blue on upper side

**Similar species:** *Lysandra coridon* having a row of orange spots on the underside of the hindwing

**Caterpillar food plant:** *Coronilla* spp. and *Astragalus* spp.

Habitat in Párnon area: meadows at 1000 -1800 m

Flight period in Párnon area: June to August, one brood

Status in Párnon area: locally common

Range: S. Europe, Asia Minor, Middle East

**Range in Greece:** widespread in mountain areas of mainland Greece and Pelopónnisos, absent from the islands except Évia, Sámos and Thásos





∂ uns











### Cyaniris helena

Author: Staudinger, 1862

English name: Helen Blue

### **Diagnosis:**

male upper side blue, underside light grey with large orange spots at the anal angle

Female: ups ground colour brown with large orange spots at the anal angle

Similar species: *Cupido osiris* not having orange spots on the hindwing underside

**Caterpillar food plant:** *Trifolium physodes* 

Habitat in Párnon area: meadows from 700 to1200 m

Flight period in Párnon area: April to June, one brood

Status in Párnon area: locally common

Range: found only in the Pelopónnisos

Range in Greece: Pelopónnisos



1

2



4

5

6

3



9

10

11

8

7









## Agrodiaetus admetus







Author:

Esper, 1788

### **English name:**

Anomalous Blue

### **Diagnosis:**

upper side completely brown; underside with a row of dark lunules close to the wing margin

### Female:

same as the male

### Similar species:

Agrodiaetus ripartii having a white stripe across the underside of the hindwing





Caterpillar food plant: Onobrychis spp.

Habitat in Párnon area: meadows from 500 to1300 m

Flight period in Párnon area: June to August, one brood

#### Status in Párnon area: locally common

Range: S.E. Europe, Turkey

#### Range in Greece:

widespread in the mountain areas in mainland Greece and Pelopónnisos, absent from the islands







1 2 З 4 11 5 6 7 8 9 10 12

# Agrodiaetus ripartii

### Author:

Freyer, 1830

English name: Ripart's Anomalous Blue

### **Diagnosis:**

upper side completely brown; underside of the hindwing crossed by a white stripe

Female: same as the male

### Similar species:

Agrodiaetus admetus not having a white stripe across the underside of the hindwing

Caterpillar food plant: Onobrychis spp.

Habitat in Párnon area: dry meadows from 900 to1700 m

Flight period in Párnon area: July and August, one brood

### Status in Párnon area:

locally common

### Range:

S. Europe, Asia Minor to Central Asia

### Range in Greece:

widespread in the mountain areas in mainland Greece and Pelopónnisos, absent from the islands







1	2	3	4	5	6	7	8	9	10	11	12
---	---	---	---	---	---	---	---	---	----	----	----



black spot in the cell (*icarus* spot) present



Polyommatus icarus



Polyommatus thersites

↑ male and female underside




### Polyommatus icarus

#### Author: Rottenburg, 1775

English name: Common Blue

#### **Diagnosis:**

underside of both wings with a row of orange spot at wing margin; forewing underside with a black spot in the cell area (see facing page)

#### Female:

usually upper side brown with a row of orange spots close to the wing margins

Variations: upper side of females may have a wide blue suffusion

#### Similar species:

*Polyommatus thersites* not having the black spot in the cell of forewing underside (see facing page)

#### Caterpillar food plant:

Trifolium spp., Medicago spp. and many other Leguminosae

#### Habitat in Párnon area:

found in all habitats, from 0 to 1800 m

#### Flight period in Párnon area:

February to November, several broods

#### Status in Párnon area:

one of the commonest butterflies in the area

Range: Europe, Middle East, Asia Minor and Central Asia

Range in Greece: commonly found in all of Greece









♀ ups





145





### Polyommatus thersites

#### Author: Cantener, 1835

English name: Chapman's Blue

#### **Diagnosis:**

male upper side violet-blue, underside of both wings with a row of orange spot at wing margin; forewing underside without the *"icarus* spot" in the cell area (see the previous page)

#### Female:

upper side brown with a row of orange spots close to the wing margins, often with a blue suffusion at wing base, which in some specimens may extend almost to the wing margin, same as in Polyommatus icarus

#### Similar species:

Polyommatus icarus having a black spot in the cell of forewing underside (see the previous page)

#### Caterpillar food plant:

various sainfoins (Onobrychis) species

#### Habitat in Párnon area:

meadows and clearings, from 500 to 1600 m

#### Flight period in Párnon area:

May to September, two broods

#### Status in Párnon area: common

#### Range:

C. S. Europe, N. W. Africa, Middle East, Asia Minor to Central Asia

#### **Range in Greece:**

mainland Greece, Pelopónnisos and the islands of Kérkira, Évia, Ródhos, Kos, Sámos and Thásos















### Polyommatus amandus











Author: Schneider, 1792

#### English name: Amanda's Blue

#### **Diagnosis:**

larger than most *Polyommatus* species, male upper side shining blue and with black margins, underside marginal orange spot only on the hindwing; forewing underside without the "*icarus* spot" in the cell area (see page 144)

#### Female:

upper side brown with some orange spots close to the margin of the hindwing

#### Similar species:

Polyommatus icarus having a black spot in the cell of forewing underside (see under Polyommatus icarus) and whose male upper side is violet blue

#### Caterpillar food plant:

various vetches (Vicia) species and other Leguminosae

#### Habitat in Párnon area:

humid meadows and clearings, from 500 to 1400 m

#### Flight period in Párnon area: May to August, one brood

#### Status in Párnon area: not common

#### Range:

Europe, N. W. Africa, Middle East and Asia Minor

#### Range in Greece:

widespread in mainland Greece and Pelopónnisos, but absent from the islands, except Lésvos and Thásos



### Polyommatus escheri

Author: Hübner, 1823

English name: Escher's Blue

#### **Diagnosis:**

male upper side silvery blue with a thin black margin, underside marginal orange spot well developed on both wings; underside light grey, forewing underside without a black spot in the cell area

#### Female:

upper side brown with orange spots close to the margin of the hindwing, underside markings bold

#### Similar species:

*Polyommatus icarus* having a black spot in the cell of forewing underside (see page 144) and whose male upper side is violet blue

Caterpillar food plant: various Astragalus spp.

#### Habitat in Párnon area:

dry meadows and rocky slopes, from 700 to 1500 m

#### Flight period in Párnon area:

May to August, one brood

#### Status in Párnon area: not common

#### Range:

S. Europe and N. W. Africa

#### Range in Greece:

widespread in mountain areas of mainland Greece and Pelopónnisos, absent from the islands





∂ ups







# Polyommatus dorylas



∂ ups



∂ uns



 $\bigcirc$  ups



Author: Denis & Schiffermüller, 1775

English name: Turquoise Blue

#### Diagnosis:

male upper side bright light blue and with a black margin, underside with black spots little developed, forewing underside without the "*icarus* spot" in the cell area (see page 142)

#### Female:

upper side brown with a row of marginal orange spots on both wings

#### Similar species:

*Polyommatus escheri* having the upper side ground colour darker and the underside with black spots more evident

Caterpillar food plant: Anthyllis spp. and other Leguminosae

Habitat in Párnon area: dry meadows and rocky slopes, from 700 to 1700 m

### Flight period in Párnon area:

May to August, one brood

Status in Párnon area: not common

#### Range:

C. and S. Europe, N. W. Africa, Asia Minor and Caucasus

#### Range in Greece:

widespread in mountain areas of mainland Greece and Pelopónnisos, absent from the islands except Évia



# Lysandra bellargus

Author: Rottenburg, 1775

English name: Adonis Blue

**Diagnosis:** wing fringes chequered (see below), male upper side brilliant sky-blue, forewing underside with the "*icarus* spot" (see page 144)

**Female:** upper side brown with a more or less developed row of orange spots close to the wing margins, often with a blue suffusion at wing base, which in some specimens may extend almost to the wing margin

#### Similar species:

*Polyommatus icarus* which has wing fringes uniformly light grey and whose male upper side is violet blue

#### Caterpillar food plant:

Hippocrepis spp. and other Leguminosae

#### Habitat in Párnon area:

meadows and clearings from 1100 to 1500 m

#### Flight period in Párnon area:

May-June and August-September, two broods

#### Status in Párnon area: rare

Range: Europe, Asia Minor, Iran

#### Range in Greece:

widespread in mainland Greece, scattered colonies in mountain areas of Pelopónnisos, absent from the islands except Thásos













### Lysandra coridon

Author: Poda, 1761

English name: Chalk-hill Blue

#### **Diagnosis:**

male upper side light greyish-blue, upper side of the hindwing with a row of dark points at wing margin

#### Female:

upper side brown, upper side of the hindwing with a row of small orange spots at wing margin, underside of the hindwing ground colour darker

Similar species: *Meleageria daphnis* having no orange spots on the underside of the hindwing

Caterpillar food plant: *Hippocrepis* spp. and other Leguminosae

Habitat in Párnon area: mountain meadows at 1600 -1800 m

#### Flight period in Párnon area:

Mid July to August, one brood

Status in Párnon area: locally common

#### Range:

C. and S. Europe, Asia Minor

#### Range in Greece:

2

1

3

widespread in mountain areas of mainland Greece and Pelopónnisos, absent from the islands



4

5

6

7

8



10

9









12

11



### family Hesperiidae

A family of small size butterflies called "Skippers".

Hesperiidae have eyes larger than in the other families and strong wing muscles in their robust body allowing them a quick, darting flight. Their wings have usually inconspicuous grey, orange or brown colours.

several Hesperiidae species are very similar and difficult to recognize. A careful study of the wing markings is usually required to distinguish them

Hesperiidae is a large family found in all continents. Over 3500 species are known, 47 of them are found in Europe and 29 in Greece. In the Párnon area there have been recorded 15 species belonging to the following genera:

Hesperia: ground colour orange - 1 species

Ochlodes: ground colour orange - 1 species

*Thymelicus*: ground colour orange, smaller than the two above genera - 3 species

Pyrgus: ground colour grey - 2 species

Spialia: ground colour grey, similar to Pyrgus - 1 species

Muschampia: ground colour grey - 1 species

Carcharodus: ground colour grey-brown - 2 species

*Erynnis*: ground colour black - 2 species

Gegenes: ground colour dark brown, smaller than *Erynnis* - 2 species

# Hesperia comma





∂ uns



♀ ups



♀ uns

Author: Linnaeus, 1758

English name: Silver-spotted Skipper

Diagnosis: underside with many white-silver spots

Female: upper side with whitish spots more evident

#### Similar species:

Ochlodes sylvanus having the underside lighter, with little evident yellow spots

**Caterpillar food plant:** *Festuca ovina* and *Lolium perenne* 

Habitat in Párnon area: meadows from 1000 to 1800 m

Flight period in Párnon area: June to September, one brood

Status in Párnon area: locally common

Range: from Europe and N.W. Africa to Japan

#### Range in Greece:

widespread in mountain areas of mainland Greece and Pelopónnisos, absent from the islands



# Ochlodes sylvanus

Author: Esper, 1777

English name: Large Skipper

**Diagnosis:** underside with many yellow spots; male upper side of the forewing with a black bar from the base towards the apex of the wing

**Female:** upper side without the black bar on the upper side of the forewing

#### Similar species:

Hesperia comma having the underside darker, with distinct white spots

#### Caterpillar food plant:

Festuca spp., Poa spp. and other grasses

Habitat in Párnon area: meadows and clearings from 700 to 1500 m

Flight period in Párnon area: June to August, one brood

Status in Párnon area: common

Range: from Europe to C. Asia

#### Range in Greece:

widespread in mainland Greece, in Pelopónnisos and in Évia, Thásos and some Ionian islands

















# Thymelicus lineola

Author: Ochsenheimer, 1808

English name: Essex Skipper

**Diagnosis:** very small; upper side completely orange-brown with the wing margins black and in the male a short black stripe across the forewing

Female: same as the male but larger

#### Similar species:

*Thymelicus sylvestris* larger and having on the upper side of the forewing of the male a longer black stripe (see photos)

Caterpillar food plant: Holcus spp., Bromus spp. and other grasses

Habitat in Párnon area: meadows and clearings from 200 to 1500 m

Flight period in Párnon area: May to September, one brood

Status in Párnon area: common

**Range:** from Europe through Asia to Japan, introduced in N. America

#### Range in Greece:

widespread in mainland Greece and in Pelopónnisos, absent from the islands





Thymelicus lineola



Thymelicus sylvestris



# Thymelicus sylvestris





Author: Poda, 1761

English name: Small Skipper

Diagnosis: upper side completely orange-brown with the wing margins black and in the male a long black stripe across the forewing

Female: same as the male but without the black stripe on the upper side of the forewing

#### Similar species:

*Thymelicus lineola* smaller and having on the upper side of the forewing of the male a shorter black stripe (see photos)

#### Caterpillar food plant:

Holcus spp., Brachypodium spp., Bromus spp. and other grasses

Habitat in Párnon area: meadows and clearings from 200 to 1500 m

Flight period in Párnon area:

May to September, one brood



Range: from Europe and N. W. Africa, through Asia to Japan

#### Range in Greece:

widespread in mainland Greece and in Pelopónnisos and also found on the islands of Kérkira, Kefaloniá, Kíthira, Spétses, Évia, Skiáthos, Thásos, Límnos, Lésvos, Híos, Sámos, Kos, Kálimnos, Sími and Tílos





Thymelicus sylvestris



#### Thymelicus lineola

### Thymelicus acteon

Author: Rottemburg, 1775

English name: Lulworth Skipper

**Diagnosis:** upper side dark orange-brown with the wing margins black and in the male a black stripe across the forewing

**Female:** same as the male but the upper side of the forewing without the black stripe and with a circle of light spots

#### Similar species:

*Thymelicus lineola* and *Thymelicus sylvestris* both having the upper side lighter orange (see previous page)

#### Caterpillar food plant:

Holcus spp., Brachypodium spp., Bromus spp. and other grasses

#### Habitat in Párnon area:

meadows and clearings from 500 to 1300 m

Flight period in Párnon area:

May to July, one brood

Status in Párnon area: not common

**Range:** C. and S. Europe, N. W. Africa, Asia Minor, Middle East, Iraq and W. Iran

#### Range in Greece:

widespread in mainland Greece and in Pelopónnisos and also found on the islands of Kérkira, Zákinthos, Kíthira, Spétses, Ídhra, Éyina, Évia, Skiáthos, Thásos, Límnos, Lésvos, Híos, Sámos, Kos, Kálimnos, Ródhos, Kríti, Ándhros, Síros, Páros, Mílos and Santoríni



d ups







# Pyrgus armoricanus



∂ ups



Author: Oberthür, 1910

English name: Oberthur's Grizzled Skipper

**Diagnosis:** upper side dark grey with many irregular white spots

Female: same as the male

#### Similar species:

Spialia orbifer smaller and having on the upper side of the forewing a row of small white spots along the margin (see photos below)

#### Caterpillar food plant:

Potentilla spp., Fragraria spp. and Rubus spp.

### Habitat in Párnon area:

drv meadows from 800 to 1400 m

#### Flight period in Párnon area:

observed only in May and June, but probably there is a second brood from July to August



#### Status in Párnon area: rare

Range: C. and S. Europe, N. W. Africa, Asia Minor, Caucasus, Middle East, Iran, Turkmenistan

#### Range in Greece:

widespread in mainland Greece, in Pelopónnisos and also found on the islands of Kriti, Évia and Thásos



2

З

Spialia orbifer



12

1

### Pyrgus malvae

Author: Linnaeus, 1758

English name: Grizzled Skipper

**Diagnosis:** small, upper side dark grey with many small white spots

Female: same as the male

#### Similar species:

*Spialia orbifer* having on the upper side of the forewing a row of small white spots along the margin (see below)

Caterpillar food plant: Potentilla spp., Rubus spp. and several Malvaceae

Habitat in Párnon area: meadows from 800 to 1300 m

Flight period in Párnon area: May to July, one brood

Status in Párnon area: rare

Range: Europe except the S.W. area, temperate Asia

#### Range in Greece:

widespread in mainland Greece, in Pelopónnisos and in the islands of Kérkira, Lésvos and Sámos







Spialia orbifer



1	2	3	4	5	6	7	8	9	10	11	12
---	---	---	---	---	---	---	---	---	----	----	----

### Spialia orbifer



∂ ups



∂ uns

Author: Hübner, 1823

English name: Orbed Red Underwing Skipper

**Diagnosis:** small, upper side dark grey with many white spots; upper side of the forewing with a regular row of small white spots along the margin

Female: same as the male

#### Similar species:

*Pyrgus malvae* not having on the upper side of the forewing a row of small white spots along the margin (see photos in the previous page)

#### Caterpillar food plant: Sanguisorba spp.



Habitat in Párnon area: meadows from 0 to 1500 m

Flight period in Párnon area: April to August, two broods

Status in Párnon area: very common

**Range:** from Sicily, mid Europe and Balkans, across S.E. Europe, Asia Minor, Middle East, to C. and Far East Asia

Range in Greece: widespread in mainland Greece, in Pelopónnisos and also found on the islands of Kefaloniá, Zákinthos, Kíthira, Spétses, Éyina, Évia, Skiáthos, Skíros, Thásos, Límnos, Lésvos, Híos, Sámos, Kálimnos, Sími and Ródhos



 1
 2
 3
 4
 5
 6
 7
 8
 9
 10
 11
 12

# Muschampia proto

Author: Ochsenheimer, 1808

English name: Sage Skipper

**Diagnosis:** small, upper side dark grey with white spots; underside of the hindwing reddish-brown with two rows of white spots

Female: same as the male

#### Similar species:

*Pyrgus armoricanus* and *Spialia orbifer* both having on the upper side of the wings many white spots and the ground colour of the underside of the hindwing lighter olive-brown

**Caterpillar food plant:** *Phlomis* spp.

Habitat in Párnon area: meadows from 400 to 1300 m

Flight period in Párnon area: June to October, two broods

Status in Párnon area: very common

Range: N.W. Africa, S. Europe, Iran

#### Range in Greece:

widespread in W. mainland Greece (sporadic elsewhere on mainland), in Pelopónnisos, and

also found on islands of Kérkira, Kíthira, Spétses, Kálimnos and Sími







11

10

12

165



8

9



### Carcharodus alceae

#### Author: Esper, 1780

English name: Mallow Skipper

#### **Diagnosis:**

small, upper side dark brown-grey with black spots and small white spots on the forewing; underside of the brown with white spots

Female: same as the male

#### Similar species:

Carcharodus orientalis having on the upper side of both wings many large white spots and the underside of the hindwing lighter

### Caterpillar food plant:

Altaea officinalis

Habitat in Párnon area: meadows and clearings from 0 to 1400 m

Flight period in Párnon area: April to September, two broods

#### Status in Párnon area: common

Range:

C. and S. Europe, Asia Minor, Middle East, Yemen to C. Asia

#### Range in Greece:

whole of Greece including all islands











1	2	3	4	5	6	7	8	9	10	11	12
---	---	---	---	---	---	---	---	---	----	----	----

### Carcharodus orientalis



∂ ups



Author: Reverdin, 1913

English name: Oriental Marbled Skipper

**Diagnosis:** small, upper side dark brown-grey with large white spots on both wings; underside of hindwing light brown with white bands and spots

Female: same as the male

Similar species: Carcharodus alceae having on the upper side small white spots only on the hindwing and the underside of the hindwing darker

Caterpillar food plant: Stachys spp.

Habitat in Párnon area: meadows and clearings from 0 to 1400 m

Flight period in Párnon area: April to August, two broods

Status in Párnon area: common

Range: S.E. Europe, Asia Minor, Caucasus, Middle East

#### Range in Greece:

mainland Greece, Pelopónnisos, as well as the islands of Kérkira, Éyina, Évia, Skíros, Límnos, Lésvos, Ándhros and Nísiros



### Erynnis tages

Author: Linnaeus, 1758

English name: Dingy Skipper

#### **Diagnosis:**

upper side dark brown-grey with a few light spots on the upper side of the forewing, underside uniformly olive-brown

Female: same as the male

#### Similar species:

*Erynnis marloyi* having upper side and underside ground colour darker and without light spots except at the costa of the forewing

#### Caterpillar food plant:

*Hippocrepis* spp., *Coronilla* spp., *Lotus* spp. and other Leguminosae

Habitat in Párnon area: meadows and clearings from 0 to 1400 m

Flight period in Párnon area:

April to September, two broods

#### Status in Párnon area: common

Range: Europe, Asia Minor, Caucasus, N.E. Iraq, N. Iran to C. Asia

#### Range in Greece:

widespread in mainland Greece and in Pelopónnisos, absent from the islands except Kérkira and Thásos









# Erynnis marloyi



∂ ups



∂ uns

Author: Boisduval, 1834

#### English name: Inky Skipper

#### **Diagnosis:**

upper side of the hindwing uniformly blackish-brown, upper side of the forewing with two black bars crossing the wing, underside uniformly blackish-brown except a row of few white spots starting from the costa of the forewing

Female: same as the male

#### Similar species:

*Erynnis tages* having upper side and underside ground colour lighter and with more light spots

#### Caterpillar food plant:

Pyrus spinosa and Pyrus cocomilla

Habitat in Párnon area: dry grassy slopes from 500 to 1200 m

Flight period in Párnon area: April to August, two broods

#### Status in Párnon area: very rare

#### Range:

C. and S. Balkans, Asia Minor, Middle East, N.E. Iraq, N. Iran and S. Turkmenistan

#### Range in Greece:

present but very local in mainland Greece and in Pelopónnisos, present also in the Ionian island of Kérkira, as well as in Lésvos, Híos and Sámos



# Gegenes pumilio

#### Author: Hoffmannseg, 1804

English name: Pigmy Skipper

**Diagnosis:** small, forewing pointed, male upper side completely black

#### Female:

ground colour lighter, forewing both sides with a row of small white dots across the wing

#### Similar species:

*Gegenes nostrodamus* having in the male a tuft of long hairy scales at the base of the underside of the hindwing

Caterpillar food plant: Pennisetum spp. Ehrharta spp. and other grasses

Habitat in Párnon area: dry slopes and hillsides from 0 to 1200 m

Flight period in Párnon area: April to October, three broods

#### Status in Párnon area: common

Range: S Europe, N. Africa, Asia Minor, Middle East to N India

#### Range in Greece:

2

З

1

widespread in coastal areas of mainland Greece and of Pelopónnisos, present as well in most islands



4

5

6

7

8







∂ uns



♀ ups



♀ uns



10

9

12

11

### Gegenes nostrodamus



∂ ups



∂ uns



 $^{\circ}$  ups



♀ uns

Author: Fabricius, 1793

English name: Mediterranean Skipper

**Diagnosis:** very close to *Gegenes pumilio*, small, forewing pointed, male upper side completely black, male underside of the hindwing with a tuft of long hairy scales at the wing base

**Female:** ground colour lighter, forewing both sides with a row of small white dots across the wing

#### Similar species:

*Gegenes pumilio* having in the male shorter hairy scales at the base of the underside of the hindwing

#### Caterpillar food plant:

Bothryochloa spp., Aeluropus spp., Panicum spp.and other grasses

### Habitat in Párnon area:

coastal slopes and hot hillsides from 0 to 1000 m

#### Flight period in Párnon area: April to October, three broods

#### Status in Párnon area: rare

Range: S Balkans, N. Africa, Asia Minor, Middle East to India

#### Range in Greece:

widespread in coastal areas of mainland Greece and of Pelopónnisos, present as well in most islands



### ADDITIONAL SPECIES THAT COULD BE FOUND IN MOUNT PARNON AREA

In the future additional butterfly species, already known for other areas of the Pelopponisos, could be found in Mount Párnon area. The more likely are the following:

family Pieridae: *Pieris mannii* (1) family Lycaenidae: *Lycaena ottomana, Satyrium acaciae, Agrodiaetus aroanensis, Turanana taygetica* family Hesperiidae: *Spialia phlomidis* 

### **CONCISE BIBLIOGRAPHY**

- Bozano, G. C. 2013 . 2019. Butterflynder Version 5.01. Apple Store https://apps.apple. com/it/app/butterflynder/id632533568
- Haahtela, T., Saarinen, K., Ojalainen, P. & Aarnio, H. 2011. Butterflies of Britain and Europe. A & C Black

Lafranchis, T. 2010. Papillons d'Europe 2me éme edition. Diatheo

- Pamperis, L. N. 2009. The Butterflies of Greece. Second edition revised and enlarged. Editions Pamperis
- Pamperis, L. N. 2018. The Butterflies of Greece. An update of distribution Maps (in WGS84), Plates and Diagrams 3.3, in Map 3.4, in Chart 4.15 and Chart 4.16. In http://www.pamperis.gr
- Tolman, T. & Lewington, R. 2008. Collins Butterfly Guide Second edition. Collins

Tshikolovets, V. 2011. Butterflies of Europe and the Mediterranean area. Tshikolovets Publications

### **INDEX OF SPECIES** (scientific names in italic lettering)

INDEX OF SPECIES (SC		ames in nanc reliening)	
acteon	161	Couded Apollo	29
adippe	78	crataegi	43
admetus	142	crocea	51
Adonis Blue	151	damone	48
aegeria	108	daphnis	139
agestis	136	Dark Green Fritillary	79
aglaja	79	didyma	85
alceae	167	Dingy Skipper	169
alexanor	25	dorylas	150
alexis	131	Dusky Meadow Brown	104
amalthea	99	Eastern Bath White	44
Amanda's Blue	148	Eastern Baton Blue	133
amandus	148	Eastern Dappled White	48
Anomalous Blue	142	Eastern Orange Tip	44
anteros	138	Eastern Rock Grayling	93
antiopa	62	edusa	37
arethusa	102	egea	69
argiolus	130	ergane	53
	135	Escher's Blue	149
argus armoricanus	162	escheri	149
	137		159
artaxerxes		Essex Skipper	
atalanta	63 45	fagi Falao Crowling	92 102
ausonia	45	FalseGrayling	102
Balkan Grayling	96 01	farinosa	38
Balkan Marbled White	91	fatua	<i>95</i>
Balkan White-banded Grayling	99	ferula	97
bavius	132	Fiery Copper	119
Bavius Blue	132	Freyer's Grayling	95
bellargus	151	Geranium Bronze	127
Black-veined White	43	Glanville Fritillary	83
Blue Argus	138	graeca	98
Blue-spot Hairstreak	121	Great Banded Grayling	100
boeticus	124	Great Sooty Satyr	97
brassicae	35	Grecian Grayling	98
Brimstone	52	Green Hairstreak	123
briseis	101	Green-underside Blue	131
Brown Argus	136	Green-veined White	45
c-album	67	Grizzled Skipper	163
Camberwell Beauty	62	Gruner's Orange Tip	49
cardamines	47	gruneri	49
Cardinal	76	Helen Blue	141
cardui	65	helena	141
celtis	87	High Brown Fritillary	78
Chalk-hill Blue	153	Holly Blue	130
Chapman's Blue	147	icarus	145
chrysippus	89	Ilex Hairstreak	120
cinxia	83	ilicis	120
circe	100	Inky Skipper	170
Cleopatra	55	jasius	71
cleopatra	55	jurtina	103
Clouded Yellow	51	Krueper's Small White	39
Comma	67	krueperi	39
comma	156	Large Skipper	157
Common Blue	145	Large Tortoiseshell	61
coridon	153	Large Wall Brown	110
		24.90	

Large White         35         Queen of Spain Fritillary         81           Larissa         91         quercus         122           lathonia         81         rapae         41           Lattice Brown         109         Red Admiral         63           Lesser Fiery Copper         116 <i>reducta</i> 73           Lesser Spotted Fritillary         86 <i>rhamni</i> 52           Jineola         159         Ripart's Anomalous Blue         143           Long-tailed Blue         124 <i>roxelana</i> 109           Luworth Skipper         161 <i>rubi</i> 123 <i>lupinus</i> 105         Sage Skipper         165           lycaon         104         Scares Ewallowtail         27 <i>machaan</i> 23         senthes         96           marea         110         sephirus         134           makawa         163         Short-tailed Blue         125           Mallow Skipper         167         Silver-spotted Skipper         156           markay         170         Silver-spotted Skipper         166           markay         172         Small Heath         107	Larga White	35	Queen of Spain Fritillary	81
Iathonia         81         rapa         41           Lattice Brown         109         Red Admiral         63           Lesser Fiery Copper         116         reducta         73           Lesser Spotted Fritillary         86         rhamni         52           Iineola         159         Ripart's Anomalous Blue         143           Little Blue         129         ripartii         143           Long-tailed Blue         124         roxelana         109           Lulworth Skipper         161         rubi         123           lupinus         105         Sage Skipper         165           lycaon         23         senthes         96           machaon         23         senthes         134           malvae         163         Short-tailed Blue         125           Malkow Skipper         167         Silver-spotted Skipper         156           markai         103         sinapis         57           Medager's Blue         139         Small Copper         116           markai         111         Small Copper         107           Medager's Blue         139         Small Skipper         166           markai <td>•</td> <td></td> <td></td> <td></td>	•			
Lattice Brown         109         Red Admiral         63           Lesser Fiery Copper         116         reducta         73           Lesser Fiery Copper         116         rharnni         52           Lincola         159         Piipart's Anomalous Blue         143           Little Blue         129         ripartii         143           Lung-tailed Blue         124         roxelana         109           Lulworth Skipper         161         rubi         123           lupinus         105         Sage Skipper         166           lycaon         104         Scarse Swallowtail         27           machaon         23         senthes         96           maera         110         sephirus         134           malvae         163         Short-tailed Blue         125           Mallow Skipper         167         Silver-spotted Skipper         156           maroyi         170         Silver-spotted Skipper         156           Maedow Brown         103         sinapis         57           Mediterranean Skipper         172         Small Copper         115           megera         111         Small Skipper         160				
Lesser Fiery Copper         116         reducta         73           Lesser Spotted Frillary         86         rhanni         52           lineola         159         Ripart's Anomalous Blue         143           Lutle Blue         129         ripartii         143           Long-tailed Blue         124         roxelana         109           Lulworth Skipper         161         rubi         123           lupinus         105         Sage Skipper         165           lycaon         104         Scares Swallowtail         27           machaon         23         senthes         96           maera         110         sephinus         134           malvae         163         Short-tailed Blue         125           Mallow Skipper         167         Silver-spotted Skipper         156           markatili         127         Silver-spotted Blue         135           markatili         127         Silver-spotted Skipper         166           memosyne         129         Small Copper         116           minimus         129         Small White         41           Mountain Argus         137         Southerm Knapweed Friillary         84				
Lesser Spotted Fritillary         86         rhamni         52           lineola         159         Ripart's Anomalous Blue         143           Long-tailed Blue         129         riparti         143           Long-tailed Blue         124         roxelana         109           Lulworth Skipper         161         rubi         123           Iupinus         105         Sage Skipper         165           lycaon         104         Scarse Swallowtail         27           machaon         23         senthes         96           maera         110         sephirus         134           malvae         163         Short-tailed Blue         125           Mallow Skipper         167         Silver-spotted Skipper         156           markae         127         Silver-studded Blue         135           markae         103         sinapis         57           Meadow Brown         103         small Skipper         160           minimu				
Ineola         159         Ripart's Anomalous Blue         143           Little Blue         129         ripartii         143           Long-tailed Blue         124         roxelana         109           Luworth Skipper         161         rubi         123           lupinus         105         Sage Skipper         165           lycaon         104         Scarse Swallowtail         27           machaon         23         senthes         96           maera         110         sephirus         134           malvae         163         Short-tailed Blue         125           Mallow Skipper         167         Silver-studded Blue         135           marloyi         170         Silver-studded Blue         135           marloyi         170         Silver-studded Blue         135           marloyi         103         sinapis         57           Medadow Brown         103         sinapis         57           Medager's Blue         139         Small Copper         117           Mountain Argus         137         Southern Comma         69           nnainus         129         Small White         41           Nobe F				
Little Blue         129         ripartii         143           Long-tailed Blue         124         roxelana         109           Luworth Skipper         161         rubi         123           lupinus         105         Sage Skipper         165           lycaon         104         Scarse Swallowtail         27           machaon         23         senthes         96           maera         110         sephirus         134           malvae         163         Short-tailed Blue         125           Mallow Skipper         167         Silver-spotted Skipper         156           marshalli         127         Silver-washed Fritillary         75           Meadow Brown         103         sinapis         57           Mediterranean Skipper         172         Small Copper         160           minmus         129         Small Copper         160           minmus         139         Southern Festoon         31           Mountain Small White         37         Southern Mapweed Fritillary         84           nobe         77         Southern Mapweed Fritillary         84           nobe fritillary         87         Southern Festoon				
Long-tailed Blue         124         roxelana         109           Lulworth Skipper         161         rubi         123           lupinus         105         Sage Skipper         165           lycaon         104         Scarse Swallowtail         27           machaon         23         senthes         96           maera         110         sephirus         134           malvae         163         Short-tailed Blue         125           marloyi         170         Silver-spotted Skipper         156           marloyi         170         Silver-spotted Skipper         157           Meadow Brown         103         sinapis         57           Mediterranean Skipper         172         Small Skipper         160           minmus         129         Small Skipper         160           minmus         137         Sooty Copper         117           Mountain Argus         137         Souty Copper         117           Mountain Small White         37         Southern Fostoon         31           Nettle-tree Butterfly         87         Southern Knapweed Fritillary         84           nobe         77         Southern White Admiral         7			1	
Lulworth Skipper         161         rubi         123           lupinus         105         Sage Skipper         165           lycaon         104         Scarse Swallowtail         27           machaon         23         senthes         96           maera         110         sephirus         134           malvae         163         Short-tailed Blue         125           Mallow Skipper         167         Silver-spotted Skipper         156           markali         127         Silver-washed Fritillary         75           Mediterranean Skipper         172         Small Copper         115           megera         111         Small Heath         107           Melager's Blue         139         Small Skipper         160           minimus         129         Small White         41           Mountain Small White         37         Southern Comma         69           napi         38         Southern Swallowtail         25           Nobe Frittillary         77         Southern Swallowtail         25           Nobe Frittillary         77         Southern Swallowtail         23           Orentarie Srized Skipper         162         spini			•	
Iupinus         105         Sage Skipper         165           lycaon         104         Scarse Swallowtail         27           machaon         23         senthes         96           maera         110         sephirus         134           malvae         163         Short-tailed Blue         125           Mallow Skipper         167         Silver-spotted Skipper         156           marloyi         170         Silver-spotted Skipper         157           Meadow Brown         103         sinapis         57           Mediterranean Skipper         172         Small Copper         115           megera         111         Small Skipper         160           minimus         129         Small White         41           Mountain Argus         137         Southern Comma         69           napi         38         Southern Knapweed Fritillary         84           niobe         77         Southern Knapweed Fritillary         84           niobe         77         Southern Knapweed Fritillary         84           niobe         77         Southern Knapweed Fritillary         84           nobe         77         Southern Knapweed Fritillary				
Iycaon         104         Scarse Swallowtail         27           machaon         23         senthes         96           maera         110         sephirus         134           malvae         163         Short-tailed Blue         125           Mallow Skipper         167         Silver-spotted Skipper         156           markoyi         170         Silver-washed Fritillary         75           Meadow Brown         103         sinapis         57           Mediterranean Skipper         172         Small Copper         115           megera         111         Small Skipper         160           minimus         129         Small Tortoiseshell         66           memosyne         29         Small White         41           Mountain Small White         37         Southern Comma         69           napi         38         Southern Mapweed Fritillary         84           niobe         77         Southern Mate Admiral         73           Nostodamus         172         Speckled Wood         108           Oberthur's Grizzled Skipper         162         spini         121           Orange Tip         47         Spotted Fritillary <t< td=""><td></td><td></td><td></td><td></td></t<>				
machaon         23         senthes         96           mara         110         sephirus         134           malvae         163         Short-tailed Blue         125           Mallow Skipper         167         Silver-spotted Skipper         156           marshalli         127         Silver-sudded Blue         135           marshalli         127         Silver-washed Fritillary         75           Meadow Brown         103         sinapis         57           Mediterranean Skipper         172         Small Copper         116           Meleager's Blue         139         Small Skipper         160           minimus         129         Small Toroiseshell         66           mnemosyne         29         Small White         41           Mountain Argus         137         Southern Comma         69           napi         38         Southern Comma         69           nabe         77         Southern Knapweed Fritillary         84           nobe         77         Southern Manawed Fritillary         84           nobr Gritillary         77         Southern Manawed Fritillary         84           nobr Gritillary         67         Spotted Friti				
maera         110         sephirus         134           malvae         163         Short-tailed Blue         125           Mallow Skipper         167         Silver-spotted Skipper         156           marloyi         170         Silver-sotted Skipper         156           marloyi         170         Silver-sotted Skipper         156           marshalli         127         Silver-washed Fritillary         75           Meadow Brown         103         sinapis         57           Mediterranean Skipper         172         Small Copper         115           megera         111         Small Heath         107           Melager's Blue         139         Small Skipper         160           minimus         129         Small White         41           Mountain Srull White         37         Southern Comma         69           napi         38         Southern Comma         69           napi         38         Southern Knapweed Fritillary         73           nobe Fritillary         77         Southern Scholvail         25           Nobe Fritillary         77         Southern Scholvail         23           Orange Tip         47         Spotted Fri	5			
malvae         163         Short-tailed Blue         125           Mallow Skipper         167         Silver-spotted Skipper         156           marloyi         170         Silver-spotted Skipper         156           marshalli         127         Silver-subded Blue         135           marshalli         127         Silver-washed Fritillary         75           Meadow Brown         103         sinapis         57           Mediterranean Skipper         172         Small Copper         115           megera         111         Small Heath         107           Meleager's Blue         139         Small Skipper         160           minimus         129         Small White         41           Mountain Argus         137         Southern Comma         69           mapi         38         Southern Festoon         31           Nobe Fritillary         87         Southern Knapweed Fritillary         84           niobe         77         Southern White Admiral         73           nostrodamus         172         Speckled Wood         108           Orberthur's Grizzled Skipper         164         statilinus         94           orbifer         164				
Mallow Skipper         167         Silver-spotted Skipper         156           marloyi         170         Silver-sudded Blue         135           marshalli         127         Silver-washed Fritillary         75           Meadow Brown         103         sinapis         57           Mediterranean Skipper         172         Small Copper         115           megera         111         Small Copper         160           minimus         129         Small Skipper         160           minimus         129         Small Vhite         41           Mountain Argus         137         Southern Comma         69           mapi         38         Southern Festoon         31           Nettle-tree Butterfly         87         Southern Mapweed Fritillary         84           nobe         77         Southern White Admiral         73           nostrodamus         172         Speckled Wood         108           Oberthur's Grizzled Skipper         164         Statilinus         94           Orbed Red Skipper         164         Swallowtail         23           Oriental Marbled Skipper         168         sylvarus         157              Oriental Meadow Brown	maera			
marloyi         170         Silver-studded Blue         135           marshalli         127         Silver-studded Blue         135           Meadow Brown         103         sinapis         57           Mediterranean Skipper         172         Small Copper         115           megera         111         Small Skipper         160           minimus         129         Small Stripeshell         66           mnemosyne         29         Small Tortoiseshell         66           mnemosyne         29         Small Nite         41           Mountain Argus         137         Southern Comma         69           napi         38         Southern Comma         69           napi         38         Southern Knapweed Fritillary         84           nobe         77         Southern Knapweed Fritillary         84           nobe         77         Southern Knapweed Fritillary         85           Orberd Red Skipper         162         spini         121           Orange Tip         47         Spotted Fritillary         85           Orberd Red Skipper         164         statilinus         94           orbifer         164         Swallowtail         <				
marshalli         127         Silver-washed Fritillary         75           Meadow Brown         103         sinapis         57           Mediterranean Skipper         172         Small Copper         115           megera         111         Small Heath         107           Meleager's Blue         139         Small Skipper         160           minimus         129         Small Vhite         41           Mountain Argus         137         Sooty Copper         117           Mountain Small White         37         Southern Comma         69           napi         38         Southern Festoon         31           Nettle-tree Butterfly         87         Southern Swallowtail         25           Niobe         77         Southern White Admiral         73           nostrodamus         172         Speckled Wood         108           Oberthur's Grizzled Skipper         162         spini         121           Orange Tip         47         Spotted Fritillary         85           Orbed Red Skipper         164         Swallowtail         23           Oriental Marbled Skipper         168         sylvestris         160           ornata         84 <td< td=""><td></td><td></td><td></td><td></td></td<>				
Meadow Brown         103         sinapis         57           Meditlerranean Skipper         172         Small Copper         115           megera         111         Small Copper         115           Meleager's Blue         139         Small Skipper         160           minimus         129         Small Tortoiseshell         66           memosyne         29         Small White         41           Mountain Small White         37         Southern Comma         69           napi         38         Southern Comma         69           napi         38         Southern Restoon         31           Nettle-tree Butterfly         87         Southern Swallowtail         25           Niobe Fritillary         77         Southern Wallowtail         25           Niobe Fritillary         77         Southern Wallowtail         25           Oberthur's Grizzled Skipper         162         spini         121           Orange Tip         47         Spetcked Wood         108           Oriental Marbled Skipper         164         Swallowtail         23           Oriental Marbled Skipper         168         sylvarus         157      Oriental Marbled Skipper         168			Silver-studded Blue	
Mediterranean Skipper         172         Small Copper         115           megera         111         Small Heath         107           Meleager's Blue         139         Small Tortoiseshell         66           mnemus         129         Small Tortoiseshell         66           mnemosyne         29         Small Tortoiseshell         66           Mountain Argus         137         Sooty Copper         117           Mountain Small White         37         Southern Festoon         31           Nettle-tree Butterfly         87         Southern Festoon         31           Nettle-tree Butterfly         87         Southern Knapweed Fritillary         84           nobe         77         Southern Knapweed Fritillary         84           nobrodamus         172         Speckled Wood         108           Oberthur's Grizzled Skipper         162         spini         121           Orange Tip         47         Speckled Wood         108           Orbed Red Skipper         164         statilinus         94           Oriental Marbled Skipper         168         sylvarus         157           Oriental Meadow Brown         105         Sylver-spotted Skipper         156	marshalli		Silver-washed Fritillary	
megera111Small Heath107Meleager's Blue139Small Skipper160minimus129Small Tortoiseshell66memosyne29Small Tortoiseshell66memosyne29Small White41Mountain Argus137Sooty Copper117Mountain Small White37Southern Comma69napi38Southern Knapweed Fritillary84niobe77Southern Knapweed Fritillary84niobe77Southern White Admiral73nostrodamus172Speckled Wood108Oberthur's Grizzled Skipper162spini121Orange Tip47Spotted Fritillary85Orbed Red Skipper164swallowtail23Oriental Marbled Skipper168sylvarus157Oriental Marbled Skipper168sylver-spotted Skipper156orientalis128tages169Osiris128tages169Osiris Blue128thersamon116Panhius107thersites147pandora76thetis119paphia75tityrus117phlaeas115Tree Grayling94pinithous125Turquoise Blue150PlantedLady65thersamon116podalirus27urticae66polychloros61vicrama133polychloros61	Meadow Brown	103		57
Meleager's Blue         139         Small Skipper         160           minimus         129         Small Tortoiseshell         66           mnemosyne         29         Small White         41           Mountain Argus         137         Souty Copper         117           Mountain Small White         37         Southern Comma         69           napi         38         Southern Comma         69           napi         38         Southern Knapweed Fritillary         84           nobe         77         Southern White Admiral         73           Nobe Fritillary         77         Southern White Admiral         73           nostrodamus         172         Speckled Wood         108           Oberthur's Grizzled Skipper         162         spini         121           Orange Tip         47         Spotted Fritillary         85           Orbed Red Skipper         164         Swallowtail         23           Oriental Marbled Skipper         168         sylvanus         157           Oriental Marbled Skipper         168         sylver-spotted Skipper         156           orinata         84         syriaca         93         osiris         160	Mediterranean Skipper	172	Small Copper	115
minimus129Small Tortoiseshell66mnemosyne29Small White41Mountain Argus137Sooty Copper117Mountain Small White37Southern Comma69napi38Southern Festoon31Nettle-tree Butterfly87Southern Swallowtail25Niobe77Southern White Admiral73nostrodamus172Speckled Wood108Oberthur's Grizzled Skipper162spini121Orange Tip47Spotted Fritillary85Orbed Red Skipper164statilinus94orbifer164Swallowtail23Oriental Marbled Skipper168sylvanus157Oriental Marbled Skipper168sylvastris160ornata84syriaca93osiris128tages169Osiris Blue128The Hermit101PaintedLady65thersamon116paphila75tityrus117phlaeas115Tree Grayling94Pigny Skipper171trivia86pilthous125Turquoise Blue150Plain Tiger89Two-tailed Pasha71podalirus27urticae66polycena31Wall Brown111Powdered Brimstone53Wood White57proto165Woodland Grayling92purilio171Zephyr Blue <td>megera</td> <td>111</td> <td>Small Heath</td> <td>107</td>	megera	111	Small Heath	107
mnemosyne29Small White41Mountain Argus137Sooty Copper117Mountain Small White37Southern Comma69napi38Southern Festoon31Nettle-tree Butterfly87Southern Knapweed Fritillary84niobe77Southern Swallowtail25Niobe Fritillary77Southern White Admiral73nostrodamus172Speckled Wood108Oberthur's Grizzled Skipper162spini121Orange Tip47Spotted Fritillary85Orbed Red Skipper164statilinus94orbifer164statilinus157Oriental Marbled Skipper168sylvanus157Oriental Marbled Skipper168sylvarus157Orientalis128The Hermit101PaintedLady65thersamon116pamphilus107thersites147pandora76thetis119paphia75tityrus117phaleas115Tree Grayling94Pigny Skipper171trivia86pilthous125Turquoise Blue150Plain Tiger89Two-tailed Pasha71podalirus27urticae66polyxena31Wall Brown111Powdered Brimstone53Wood White57proto165Woodland Grayling92purnilio171<	Meleager's Blue	139	Small Skipper	160
Mountain Argus137Sooty Copper117Mountain Small White37Southern Comma69napi38Southern Comma69nabi37Southern Knapweed Fritillary84niobe77Southern Swallowtail25Niobe Fritillary77Southern White Admiral73nostrodamus172Speckled Wood108Oberthur's Grizzled Skipper162spini121Orange Tip47Spotted Fritillary85Orbed Red Skipper164statilinus94orbifer164Swallowtail23Oriental Marbled Skipper168sylvanus157Oriental Marbled Skipper168sylvanus157Oriental Marbled Skipper168sylvestris160ornata84syriaca93osiris128tages169Osiris Blue128The Hermit101pamphilus107thersites147panhia75tityrus117phlaeas115Tree Grayling94pirithous125Turquoise Blue150Plain Tiger89Two-tailed Pasha71podalirus27urcae66polychloros61vicrama133polycena31Wall Brown111Powdered Brimstone53Wood White57purilio171Zephyr Blue134	minimus	129	Small Tortoiseshell	66
Mountain Small White37Southern Comma69napi38Southern Festoon31Nettle-tree Butterfly87Southern Knapweed Fritillary84niobe77Southern Swallowtail25Niobe Fritillary77Southern White Admiral73nostrodamus172Speckled Wood108Oberthur's Grizzled Skipper162spini121Orange Tip47Spotted Fritillary85Orbed Red Skipper164statilinus94orbifer164Swallowtail23Oriental Marbled Skipper168sylvanus157Oriental Marbled Skipper168sylvanus157Oriental Marbled Skipper168sylvanus160ornata84syriaca93osiris128tages169Osiris Blue128The Hermit101PaintedLady65thersamon116parphilus107thesites147paladora76thetis119pahia75tityrus117phlaeas115Tree Grayling94Pirithous27urdicae66polychloros61vicrama133polycena31Wall Brown111Powdered Brinstone53Wood White57proto165Wood Ind Grayling92purilio171Zephyr Blue134	mnemosyne	29	Small White	41
napi38Southern Festoon31Nettle-tree Butterfly87Southern Knapweed Fritillary84niobe77Southern White Admiral25Niobe Fritillary77Southern White Admiral73nostrodamus172Speckled Wood108Oberthur's Grizzled Skipper162spini121Orange Tip47Spotted Fritillary85Orbed Red Skipper164statilinus94orbifer164statilinus157Oriental Marbled Skipper168sylvanus157Oriental Meadow Brown105Sylver-spotted Skipper156orinata84syriaca93osiris128tages169Osiris Blue128The Hermit101Paindora76thersites147paphia75tityrus117phaeas115Tree Grayling94Pigny Skipper171trivia86pirithous27urticae66polychloros61vicrama133polycender53Wood White57proto165Wood White57proto165Wood White57proto165Wood White57proto165Wood White57proto165Wood White57proto165Wood White57proto165Wood White57polycena31 </td <td>Mountain Argus</td> <td>137</td> <td>Sooty Copper</td> <td>117</td>	Mountain Argus	137	Sooty Copper	117
Nettle-tree Butterfly87Southern Knapweed Fritillary84niobe77Southern Swallowtail25Niobe Fritillary77Southern White Admiral73nostrodamus172Speckled Wood108Oberthur's Grizzled Skipper162spini121Orange Tip47Spotted Fritillary85Orbed Red Skipper164statilinus94orbifer164statilinus94orbifer168sylvanus157Oriental Marbled Skipper168sylver.spotted Skipper156oriental Marbled Skipper168sylvestris160oranata84syriaca93osiris128tages169Osiris Blue128The Hermit101PaintedLady65thersamon116pamphilus107thersites147paha75tityrus117phaeas115Tree Grayling94Pigmy Skipper171trivia86pirithous27urticae66polychloros61vicrama133polycena31Wall Brown111Powdered Brimstone53Wood White57proto165Woodland Grayling92purilio171Zephyr Blue134	Mountain Small White	37	Southern Comma	69
niobe77Southern Swallowtail25Niobe Fritillary77Southern White Admiral73nostrodamus172Speckled Wood108Oberthur's Grizzled Skipper162spini121Orange Tip47Spotted Fritillary85Orbed Red Skipper164statilinus94orbifer164Swallowtail23Oriental Marbled Skipper168sylvanus157Oriental Meadow Brown105Sylver-spotted Skipper156orientalis168sylvestris160ornata84syriaca93osiris128tages169Osiris Blue128the Hermit101PaintedLady65thersamon116paphia76thetis119paphia75tityrus117phlaeas115Tree Grayling94Pigmy Skipper171trivia86pirithous125Turquoise Blue150Plain Tiger89Two-tailed Pasha71podalirius27urticae66polychloros61vicrama133polycena31Wall Brown111Powdered Brimstone53Wood White57proto165Woodland Grayling92pumilio171Zephyr Blue134	napi	38	Southern Festoon	31
Niobe Fritillary77Southern White Admiral73nostrodamus172Speckled Wood108Oberthur's Grizzled Skipper162spini121Orange Tip47Spotted Fritillary85Orbed Red Skipper164statilinus94orbifer164Swallowtail23Oriental Marbled Skipper168sylvanus157Oriental Meadow Brown105Sylver-spotted Skipper156orinata84syriaca93osiris128tages169Osiris Blue128The Hermit101PaintedLady65thersamon116pamphilus107thersites147paldora76thetis119paphia75tityrus117phlaeas115Tree Grayling94Pigmy Skipper171trivia86pirithous125Turquoise Blue150Plain Tiger89Two-tailed Pasha71podalirius27urticae66polychloros61vicrama133polycena31Wall Brown111Powdered Brimstone53Wood White57proto165Woodland Grayling92pumilio171Zephyr Blue134	Nettle-tree Butterfly	87	Southern Knapweed Fritillary	84
nostrodamus172Speckled Wood108Oberthur's Grizzled Skipper162spini121Orange Tip47Spotted Fritillary85Orbed Red Skipper164statilinus94orbifer164Swallowtail23Oriental Marbled Skipper168sylvanus157Oriental Meadow Brown105Sylver-spotted Skipper156orientalis168sylvastris160oranta84syriaca93osiris128tages169Osiris Blue128The Hermit101PaintedLady65thersamon116pamphilus107thersites147padora76thetis119paphia75tityrus117plaeas115Tree Grayling94Pigmy Skipper171trivia86pirithous125Turquoise Blue150Plain Tiger89Two-tailed Pasha71podalirius27urticae66polychloros61vicrama133polycena31Wall Brown111Powdered Brimstone53Wood White57proto165Woodland Grayling92pumilio171Zephyr Blue134	niobe	77	Southern Swallowtail	25
Oberthur's Grizzled Skipper162spini121Orange Tip47Spotted Fritillary85Orbed Red Skipper164statilinus94orbifer164Swallowtail23Oriental Marbled Skipper168sylvanus157Oriental Meadow Brown105Sylver-spotted Skipper156orientalis168sylvestris160ornata84syriaca93osiris128tages169Osiris Blue128The Hermit101PaintedLady65thersamon116pambilus107thesites147paha75tityrus117phlaeas115Tree Grayling94Pigmy Skipper171trivia86pirithous125Turquoise Blue150Plain Tiger89Two-tailed Pasha71podalirius27urticae66polychloros61vicrama133polycena31Wall Brown111Powdered Brimstone53Wood White57proto165Woodland Grayling92pumilio171Zephyr Blue134	Niobe Fritillary	77	Southern White Admiral	73
Oberthur's Grizzled Skipper162spini121Orange Tip47Spotted Fritillary85Orbed Red Skipper164statilinus94orbifer164Swallowtail23Oriental Marbled Skipper168sylvanus157Oriental Meadow Brown105Sylver-spotted Skipper156orientalis168sylvestris160ornata84syriaca93osiris128tages169Osiris Blue128The Hermit101PaintedLady65thersamon116pamphilus107thesites147pahaa76thetis119paphia75tityrus117phlaeas115Tree Grayling94Pigmy Skipper171trivia86pirithous27urticae66polychloros61vicrama133polycena31Wall Brown111Powdered Brimstone53Wood White57proto165Woodland Grayling92pumilio171Zephyr Blue134	nostrodamus	172	Speckled Wood	108
Orange Tip47Spotted Fritillary85Orbed Red Skipper164statilinus94orbifer164Swallowtail23Oriental Marbled Skipper168sylvanus157Oriental Meadow Brown105Sylver-spotted Skipper156orientalis168sylvestris160ornata84syriaca93osiris128tages169Osiris Blue128The Hermit101PaintedLady65thersamon116pambilus107thesites147pandora76thetis119paphia75tityrus117phlaeas115Tree Grayling94Pigmy Skipper171trivia86pirithous27urticae66polychloros61vicrama133polycena31Wall Brown111Powdered Brimstone53Wood White57proto165Woodland Grayling92pumilio171Zephyr Blue134	Oberthur's Grizzled Skipper	162		121
Orbed Red Skipper164statilinus94orbifer164Swallowtail23Oriental Marbled Skipper168sylvanus157Oriental Meadow Brown105Sylver-spotted Skipper156orientalis168sylvestris160ornata84syriaca93osiris128tages169Osiris Blue128The Hermit101PaintedLady65thersamon116pandora76thetis119paphia75tityrus117phlaeas115Tree Grayling94Pigmy Skipper171trivia86pirithous125Turquoise Blue150Plain Tiger89Two-tailed Pasha71podalirius27urtcae66polychloros61vicrama133polyxena31Wall Brown111Powdered Brimstone53Wood White57proto165Woodland Grayling92pumilio171Zephyr Blue134		47		85
orbifer164Swallowtail23Oriental Marbled Skipper168sylvanus157Oriental Meadow Brown105Sylver-spotted Skipper156orientalis168sylvestris160ornata84syriaca93osiris128tages169Osiris Blue128The Hermit101PaintedLady65thersamon116pamphilus107thersites147pandora76thetis119paphia75tityrus117phlaeas115Tree Grayling94Pigmy Skipper171trivia86pirithous125Turquoise Blue150Plain Tiger89Two-tailed Pasha71podalirius27urticae66polychloros61vicrama133polyzena31Wall Brown111Powdered Brimstone53Wood White57proto165Woodland Grayling92pumilio171Zephyr Blue134		164		94
Oriental Marbled Skipper168sylvanus157Oriental Meadow Brown105Sylver-spotted Skipper156orientalis168sylvestris160ornata84syriaca93osiris128tages169Osiris Blue128The Hermit101PaintedLady65thersamon116pamphilus107thersites147pandora76thetis119paphia75tityrus117phlaeas115Tree Grayling94Pigmy Skipper171trivia86pirithous125Turquoise Blue150Plain Tiger89Two-tailed Pasha71podalirius27urticae66polychloros61vicrama133polyzena31Wall Brown111Powdered Brimstone53Wood White57proto165Woodland Grayling92pumilio171Zephyr Blue134		164		23
Oriental Meadow Brown105Sylver-spotted Skipper156orientalis168sylvestris160ornata84syriaca93osiris128tages169Osiris Blue128The Hermit101PaintedLady65thersamon116pamphilus107thersites147pandora76thetis119paphia75tityrus117plaeas115Tree Grayling94Pigmy Skipper171trivia86pirithous125Turquoise Blue150Plain Tiger89Two-tailed Pasha71podalirius27urticae66polychloros61vicrama133polyxena31Wall Brown111Powdered Brimstone53Wood White57proto165Woodland Grayling92pumilio171Zephyr Blue134		168		
orientalis168 $sylvestris$ 160ornata84 $syriaca$ 93osiris128 $tages$ 169Osiris Blue128The Hermit101PaintedLady65thersamon116pamphilus107thersites147pandora76thetis119paphia75tityrus117plaeas115Tree Grayling94Pigmy Skipper171trivia86pirithous125Turquoise Blue150Plain Tiger89Two-tailed Pasha71podalirius27urticae66polychloros61vicrama133polyxena31Wall Brown111Powdered Brimstone53Wood White57proto165Woodland Grayling92pumilio171Zephyr Blue134			5	
ornata84syriaca93osiris128tages169Osiris Blue128The Hermit101PaintedLady65thersamon116pamphilus107thersites147pandora76thetis119paphia75tityrus117phlaeas115Tree Grayling94Pigmy Skipper171trivia86pirithous125Turquoise Blue150Plain Tiger89Two-tailed Pasha71podalirius27urticae66polychloros61vicrama133polyxena31Wall Brown111Powdered Brimstone53Wood White57proto165Woodland Grayling92pumilio171Zephyr Blue134				
osiris128tages169Osiris Blue128The Hermit101PaintedLady65thersamon116pamphilus107thersites147pandora76thetis119paphia75tityrus117phlaeas115Tree Grayling94Pigmy Skipper171trivia86pirithous125Turquoise Blue150Plain Tiger89Two-tailed Pasha71podalirius27urticae66polychloros61vicrama133polyxena31Wall Brown111Powdered Brimstone53Wood White57proto165Woodland Grayling92pumilio171Zephyr Blue134				
Osiris Blue128The Hermit101PaintedLady65thersamon116pamphilus107thersites147pandora76thetis119paphia75tityrus117phlaeas115Tree Grayling94Pigmy Skipper171trivia86pirithous125Turquoise Blue150Plain Tiger89Two-tailed Pasha71podalirius27urticae66polychloros61vicrama133polyxena31Wall Brown111Powdered Brimstone53Wood White57proto165Woodland Grayling92pumilio171Zephyr Blue134				
PaintedLady65thersamon116pamphilus107thersites147pandora76thetis119paphia75tityrus117phlaeas115Tree Grayling94Pigmy Skipper171trivia86pirithous125Turquoise Blue150Plain Tiger89Two-tailed Pasha71podalirius27urticae66polychloros61vicrama133polyxena31Wall Brown111Powdered Brimstone53Wood White57proto165Woodland Grayling92pumilio171Zephyr Blue134				
pamphilus107thersites147pandora76thetis119paphia75tityrus117phlaeas115Tree Grayling94Pigmy Skipper171trivia86pirithous125Turquoise Blue150Plain Tiger89Two-tailed Pasha71podalirius27urticae66polychloros61vicrama133polyxena31Wall Brown111Powdered Brimstone53Wood White57proto165Woodland Grayling92pumilio171Zephyr Blue134				
pandora76thetis119paphia75tityrus117phlaeas115Tree Grayling94Pigmy Skipper171trivia86pirithous125Turquoise Blue150Plain Tiger89Two-tailed Pasha71podalirius27urticae66polychloros61vicrama133polyzena31Wall Brown111Powdered Brimstone53Wood White57proto165Woodland Grayling92pumilio171Zephyr Blue134	5			
paphia75tityrus117phlaeas115Tree Grayling94Pigmy Skipper171trivia86pirithous125Turquoise Blue150Plain Tiger89Two-tailed Pasha71podalirius27urticae66polychloros61vicrama133polyzena31Wall Brown111Powdered Brimstone53Wood White57proto165Woodland Grayling92pumilio171Zephyr Blue134				
phlaeas115Tree Grayling94Pigmy Skipper171trivia86pirithous125Turquoise Blue150Plain Tiger89Two-tailed Pasha71podalirius27urticae66polychloros61vicrama133polyzena31Wall Brown111Powdered Brimstone53Wood White57proto165Woodland Grayling92pumilio171Zephyr Blue134				
Pigmy Skipper171trivia86pirithous125Turquoise Blue150Plain Tiger89Two-tailed Pasha71podalirius27urticae66polychloros61vicrama133polyzena31Wall Brown111Powdered Brimstone53Wood White57proto165Woodland Grayling92pumilio171Zephyr Blue134				
pirithous125Turquoise Blue150Plain Tiger89Two-tailed Pasha71podalirius27urticae66polychloros61vicrama133polyxena31Wall Brown111Powdered Brimstone53Wood White57proto165Woodland Grayling92pumilio171Zephyr Blue134	1			
Plain Tiger89Two-tailed Pasha71podalirius27urticae66polychloros61vicrama133polyxena31Wall Brown111Powdered Brimstone53Wood White57proto165Woodland Grayling92pumilio171Zephyr Blue134				
podalirius27urticae66polychloros61vicrama133polyxena31Wall Brown111Powdered Brimstone53Wood White57proto165Woodland Grayling92pumilio171Zephyr Blue134				
polychloros61vicrama133polyxena31Wall Brown111Powdered Brimstone53Wood White57proto165Woodland Grayling92pumilio171Zephyr Blue134				
polyxena31Wall Brown111Powdered Brimstone53Wood White57proto165Woodland Grayling92pumilio171Zephyr Blue134				
Powdered Brimstone53Wood White57proto165Woodland Grayling92pumilio171Zephyr Blue134				
proto165Woodland Grayling92pumilio171Zephyr Blue134				
pumilio 171 Zephyr Blue 134				
	1		, ,	
ruipie naiisiidak 122				134
	I UIPIE I IAII SILEAN	122		





### Co-funded by Greece and the European Union

ISBN: 978-618-85093-1-3



Gian Cristoforo Bozano lives in Milano with his wife Laura. He is an engineer but butterflies have always been his main interest and he has dedicated his life to study them all around the world. He is editor and co-author of the series of books "Guide to the butterflies of the Palearctic Region" well known among worldwide butterfly specialists.



Nick Gavalas lives in Athens and works in the field of Health. He is a graduate of the Biology Department of Athens University and has been involved in the research of the Greek Rhopalocera butterflies since 1984. He has been author or co-author of many articles published in prestigious scientific journals in this field.