





# **European Butterflies Group**

# Identification Guide to the Polyommatinae Group of 'Blues' and 'Arguses' in Europe Part 1: The Commoner Species

# **Designed by Bill Raymond**

For more information on all aspects of European butterflies please go to <u>european-butterflies.org.uk</u> The other free to download guides in this series are available at <u>EBG Identification Guides</u>

## How to use this Guide

Introduction	Please read the Introduction which gives some background to the difficulties of identifying Polyommatinae.
List of Species	If you wish to go direct to a Species Profile go to the list of Species Covered by this Guide.
Explanation of Terms used	Familiarise yourself with the simplified terminology used in this guide. This link explanation of these terms is provided for easy reference on every page. For simplicity, common English names have been used in the text where possible and in some instances the scientific conventions on the use of italics may not have been strictly followed.
Upperside Key	For a definitive identification of many 'Blues' it is usually necessary to have a view of both upper and underside, especially the latter. Due to the variation in most species and the colour rendition of photographs a definitive identification by upperside only is not possible in many cases. The Upperside Key must therefore be viewed as imprecise but useful when employed in conjunction with the Underside Key to achieve an identification.
UNDERSIDE Key	The identification process should start with the Underside Key which is the Master Key. To work most effectively this requires a clear view of both the underside hind and fore-wing, the latter often being partly hidden which can obscure important features. When using the Key it is important that each feature from 1 to 8 is checked in sequence as instructed. This may seem tedious at first but after using it several times the process will become quick and straightforward as you become familiar with the features. The Key will hopefully reduce the possibilities or lead you to a Species Profile where you can make a comparison to confirm identification.
Species Profiles	Each of the Species Profiles tries to describe and illustrate a 'typical' specimen. Keep in mind that: [i] there is considerable variation and in some cases the illustrated specimen may not exactly match the description in the text. This is because the illustration is chosen <b>to show the key identification features</b> ; [ii] very often, several underside marks and not just the key features need to be compared for a confident identification; [iii] in some cases it may only be possible to identify a specimen by capture, a practice which should only be undertaken by skilled observers with the appropriate authorisation. The arrangement and order of the Species Profiles is designed, where possible, to have species which are difficult to separate on the same or adjoining pages to facilitate comparison.
?	This symbol indicates guidance notes to help identification when [i] there are similar species which might confuse, [ii] you have keyed to a point [due to variation in species or other factors] where your specimen does not seem to fit.
Species Links	Useful links to facilitate reference to a Species Profile are provided by clicking on an <u>underlined species name</u> or by clicking on a species title box, e.g. Common Blue Brown Argus

## How to use this Guide cont'd

DistributionDetailed distribution maps for each species can be found at the end of the guide. See Appendix for details of the<br/>geographical area covered. A link to the mapsMapsis included on each page.

**NOTES:** [a] Similar 'local' species: Information on these species is included in the Species Profile where appropriate to help in case of doubt about identification. The 'local' species will be dealt with in detail in the second part of this guide.

[b] Flight period and size: These are very variable and have only been included where they may be helpful in identification.

**[c] Colour:** The depth of colour seen on a butterfly is dependent on the intensity of the light and the angle at which the specimen is viewed. This means that blue scaling can appear as light blue, dark blue, silvery blue and all colours in between. Similarly, orange markings can appear yellowish or red. Brown can also be light or dark. Ageing, wear and loss of scales will also affect the look of a butterfly. Colour can therefore, in many instances, be inconsistent and unreliable for identification purposes and is little used in this guide as a comparative feature. It is mentioned ONLY where it is considered consistent and helpful.

**[d]** Some familiar identifying features which are frequently cited in other identification guides have not been included due to these features being considered inconsistent and therefore unreliable.

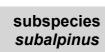
[e] The term 'this guide' refers to this document, i.e. Part 1 of the Guide to Polyommatinae, and the 'commoner' species it covers.

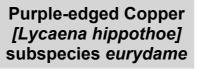
#### Species that might be confused with the 'Blues' and 'Arguses'

The Polyommatinae group of 'Blues' and 'Arguses' featured in this guide are small brown and blue butterflies **the majority of which are unlikely to be mistaken** for species outside of this group. Nevertheless, the **brown upperside** of some 'Blues' and 'Arguses' [mostly females] might possibly be confused with the **uppersides** of other Lycaenidae species. **Fortunately, a view of the underside should remove any doubt.** The uppersides of these superficially similar looking species are illustrated below for comparison. Please refer to other sources for more information if necessary.

Sooty Copper [Lycaena tityrus] male









Purple Hairstreak [Favonius quercus]

if angle of illumination not revealing purple clearly



Note: Some of the other 'Hairstreaks' also have brown uppersides which might initially be confused on the wing. However, they usually rest with wings closed giving an underside view which should remove any doubt.

## Introduction

The English term 'Blues' is generally applied to a group of butterflies which are in many instances immediately recognisable by their colour and generally small size. This is the Polyommatinae group of Lycaenidae. In the area covered by this guide, i.e. Europe up to the eastern boundary of the European Union, this group consists of approximately 90 species, many of which are very local in their distribution. To simplify the identification process by creating a workable Key this guide covers those species which are relatively widespread and most likely to be encountered. These will be referred to as the 'Commoner Species'.

The remaining species, styled the 'Local Species', will be dealt with in Part 2 of this guide which is in course of preparation. If uncertainty exists about identification as one of the 'Commoner Species' here in Part 1 then you are referred to the most likely members of the 'Local Species' which can be investigated in other literature. Once Part 2 is published then a complete guide bringing the 'Commoner' and 'Local' species together will also be made available by the European Butterfly Group.

The Polyommatinae are a difficult and confusing group to identify. They are prone to variation which exacerbates the difficulties plus, in many cases, several similar species can fly together. The uppersides of the majority of Polyommatinae males are noticeably blue or a shade of blue/silvery blue with most females usually brown with some degree of blue scaling. Confusingly, however, some males are brown and the more widespread of these species are known as Anomalous Blues and Arguses.

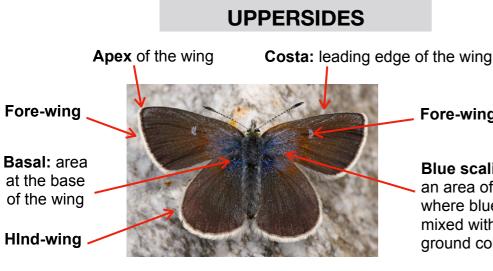
The undersides of both sexes of Polyommatinae are generally similar apart from the females generally being browner with bolder marks. The markings on the underside are in many cases the key to differentiating the species and it is often the case that one mark alone is not sufficient, with a combination of marks being necessary for a 'confident' identification. Although the underside is normally the only reliable way to identify the 'Blues' an imprecise upperside key is included to assist if a restricted view or no underside view is available. Female uppersides are especially difficult to separate and attempting this by use of photographs is often a case of choosing the most likely possibility. Thus, in many instances a view of both upper and underside is required.

Whilst designing this guide I scrutinised hundreds of photographs to try and find 'typical examples' of each species but soon realised that there is really no such thing, every butterfly is a unique individual. So, to achieve an illustration of a specimen with the key identification features clearly displayed, a number of the photographs had to be manipulated. When it comes to identifying butterflies by sight there are very few hard and fast rules. For butterflies - variety is the spice of life!

Bill Raymond

## **Explanation of terms used**

For a positive identification of 'Blues' it is generally necessary to closely examine the markings on the upperside and the underside. The diagrams below explain the simplified terms used in this guide to describe the distinguishing features. <u>Click here</u> for links to all Species Profiles.

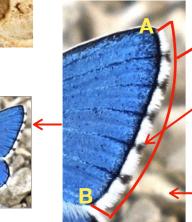


Blue scaling or dusting: an area of the upperside where blue scales are mixed with the dark

ground colour scales

Fore-wing cell mark





Fringe: the outermost part of the wing. Generally white and sometimes [as shown here] with Fringe lines: dark projections of the veins into the fringe. <u>Click here</u> for more information.

Androconial patch: an area of the MALE wing covered by androconia [scent scales for attracting females]. They usually create a noticeable patch on the fore-wing.

> Wing border: dark margin to the outer edge of the wing adjacent to the fringe, i.e. the dark line from A to B.

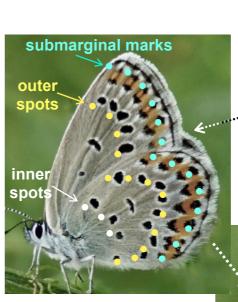
Submarginal marks: rows of marks found adjacent to the wing border on either or both fore and hind-wing





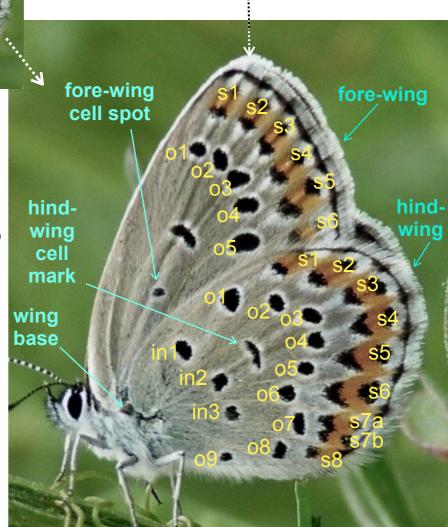
Veins: tiny tubes supporting the wing,
radiating out across the wing from the wing base. Sometimes the veins are very visible, either bright or dark.
Vein darkening usually starts here 
at the wing border and runs part or all of the way to the base of the wing.





s = submarginal marks o = outer spots in = inner spots

Note: Spot numbering is from top of the wing downwards - the reverse to that used in many other guides which count upwards. From photos it is usually difficult to see the first vein or spot at the bottom of the wing. Counting upwards to check position can thus be problematic. There are **three main bands of marks and spots** between the veins on the underside fore and hind-wing. Starting from the base of the wing outwards they shall be referred to as **inner spots**, **outer spots and submarginal marks**. They are numbered as shown in the diagram below.



The terms **inner** and **outer** are used to indicate nearer to and further from the base of the wing respectively.

#### UNDERSIDES [males and females usually have similar markings]

# **Species covered by this Guide**

If you wish to bypass the Identification Keys and go directly to a detailed Species Profile click on the species name below.

Adonis Blue [Lysandra bellargus]	Alcon Blue [Phengaris alcon]	Alpine Blue [Agriades orbitulus]	
Amanda's Blue [Polyommatus amandus]	Anomalous Blue [Polyommatus admetus]	Baton Blue [Pseudophilotes baton]	
Black-eyed Blue [Glaucopsyche melanops]	Brown Argus [Aricia agestis]	Catalonian Furry Blue [Polyommatus fulgens]	
Chapman's Blue [Polyommatus thersites]	Chequered Blue [Scolitantides orion]	Chalkhill Blue [Lysandra coridon]	
Common Blue [Polyommatus icarus]	Cranberry Blue [Agriades optilete]	Damon Blue [Polyommatus damon]	
Eros Blue [Polyommatus eros]	Escher's Blue [Polyommatus escheri]	Furry Blue [Polyommatus dolus]	
Geranium Argus [Eumedonia eumedon]	Geranium Bronze [Cacyreus marshalli]	Glandon Blue [Agriades glandon]	
Green-underside Blue [Glaucopsyche alexis]	Holly Blue [Celastrina argiolus]	Idas Blue [Plebejus idas]	
Iolas Blue [Iolana iolas]	Lang's Short-tailed Blue [Leptotes pirithous]	Large Blue [Phengaris arion]	
Long-tailed Blue [Lampides boeticus]	Mazarine Blue [Cyaniris semiargus]	Meleager's Blue [Polyommatus daphnis]	
Northern Brown Argus [Aricia artaxerxes]	Osiris Blue [Cupido osiris]	Provençal Short-tailed Blue [Cupido alcetas]	
Reverdin's Blue [Plebejus argyrognomon]	Ripart's Anomalous Blue [Polyommatus ripartii]	Short-tailed Blue [Cupido argiades]	
Silver-studded Blue [Plebejus argus]	Silvery Argus [Aricia nicias]	Small Blue [Cupido minimus]	
Southern Brown Argus [Aricia cramera]	Southern Common Blue [Polyommatus celina]	Southern Mountain Argus [Aricia montensis]	
Turquoise Blue [Polyommatus dorylas]	Zephyr Blues: Alpine / Balkan / Spanish [Kretania trappi / sephirus / hesperica]		



# **UNDERSIDE** Identification Key



#### UNDERSIDE Identification Kev

Note: Male and female markings are usually similar with females more likely to have darker marks/colouration. See Species Profiles for exceptions.

**START HERE** 

by looking at each of the features below IN SEQUENCE. When you find a match follow the link[s].

Keep in mind that there is great variation and these features may not always be present. Click here or above for an Explanation of Terms used.



features then look to see if there is a visible cell spot present on the fore-wing as shown here?



partly hidden and is ..... just visible like this?

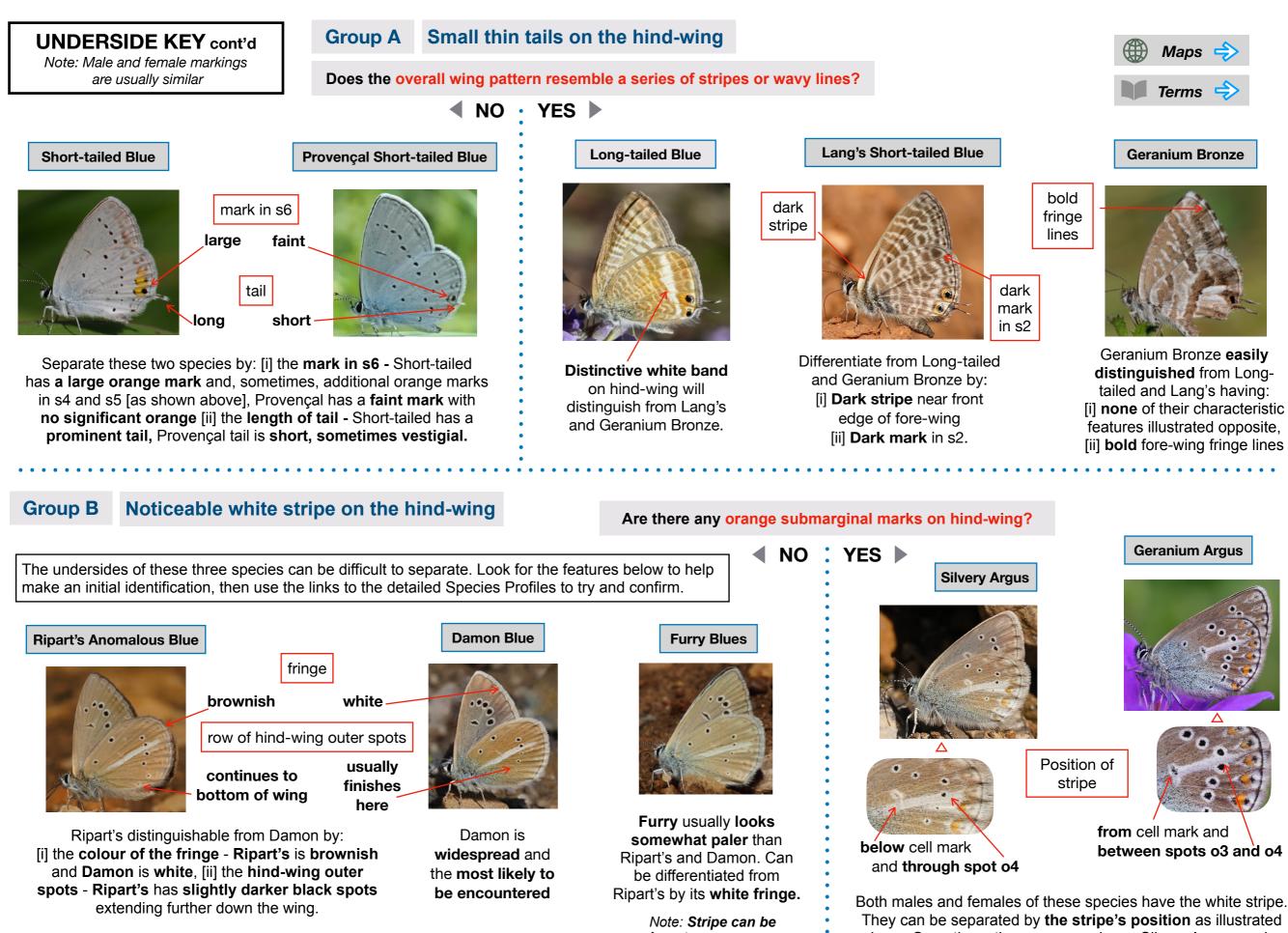


If YES, a fore-wing cell spot is	5
present, then go to	

**Common Blue Eros Blue** 

#### for a detailed comparison

vou cannot be sure, then click here to go to Group F



Note: These three species have: [i] the white stripe on both males and females, [ii] different coloured MALE uppersides which are easily distinguished from one another. absent on some races of Furry Blue

They can be separated by the stripe's position as illustrated above. Sometimes the orange marks on Silvery Argus can be faint [as shown above] but they are still usually visible.

### UNDERSIDE KEY cont'd

Note: Male and female markings are usually similar

**Group C** 

Chalkhill Blue

Noticeable dark fringe lines on both wings

Are the fringe lines very bold, becoming like large marks?

Maps

Terms

Adonis Blue





These two species have similar undersides with females sometimes indistinguishable. The colouring is variable on both species with males frequently paler than females. The markings on Adonis are generally bolder than Chalkhill.

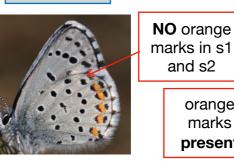
A view of the quite different male uppersides will readily differentiate. For a detailed comparison go to the Species Profiles.





the fringe from the vein end.

YES



**Baton Blue** 

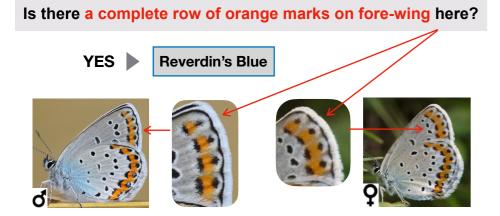
and s2 orange marks present



On these two species the fringe lines are very bold, becoming large marks. Distinguish from one another by the orange submarginal marks on the hind-wing: Baton has NO orange marks in s1 and s2 whilst Chequered has a complete band of orange marks.

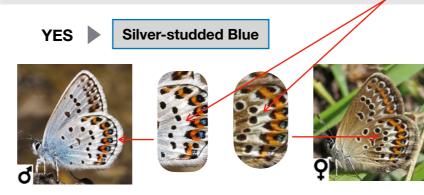
#### Blue/silver scales in hind-wing submarginal marks **Group D**

The undersides of the three species in this group are superficially similar and can be difficult to separate. Use the preliminary notes/comparisons below to help make an initial identification for your butterfly. Then use the links to refer to the Species Profiles where detailed comparisons of the three species can be consulted.



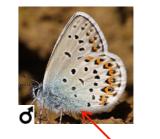
There is normally a complete row of submarginal orange marks on the underside fore-wing of both males and females even though these may fade in colour towards the top of the wing. This will usually differentiate male Reverdin's from Idas males and Silver-studded males





The presence of a noticeable white band inside the submarginal marks on the hind-wing can help to distinguish males and females from Reverdin's. This white band is usually more marked on females due to their darker ground colour.



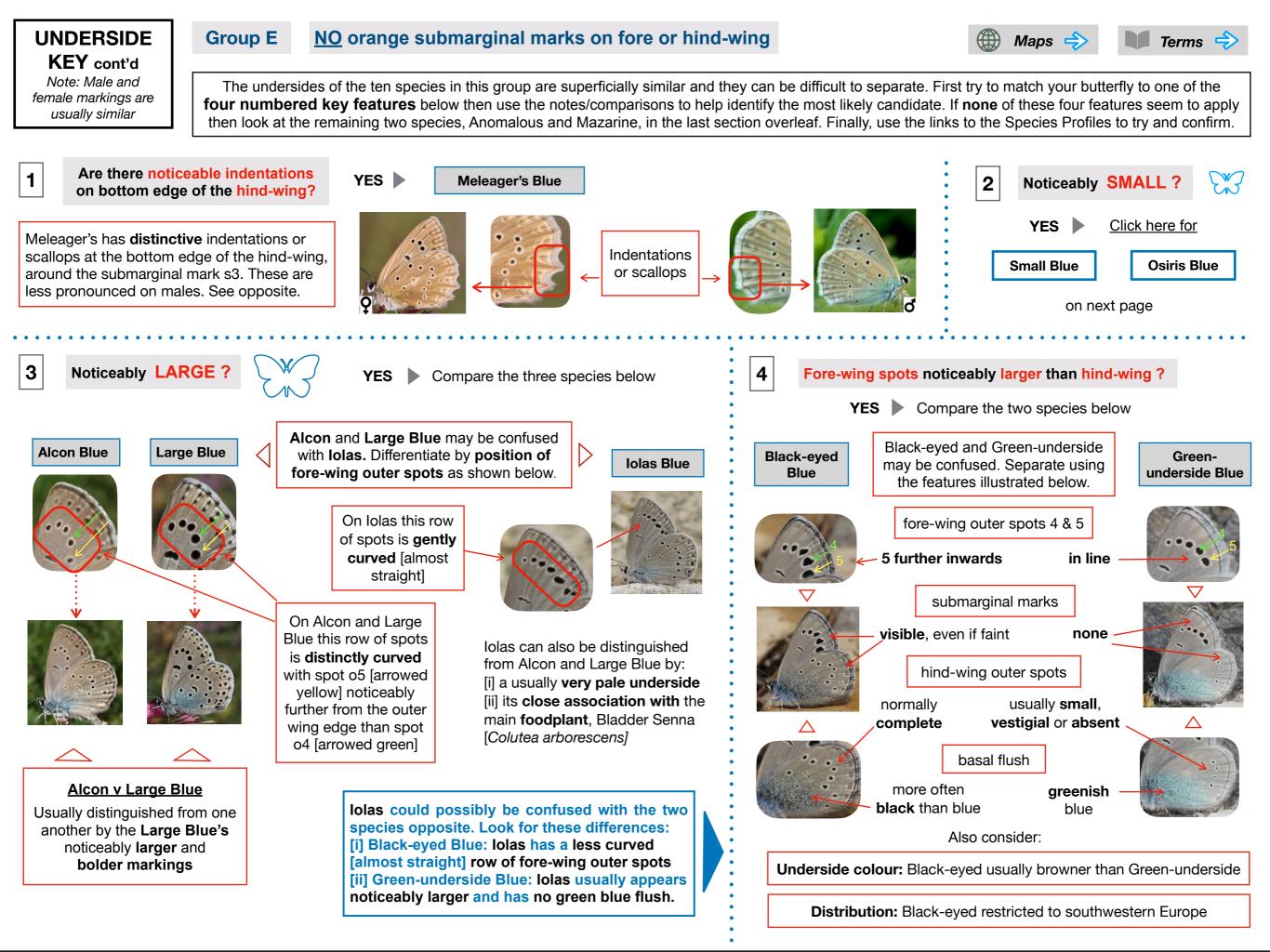


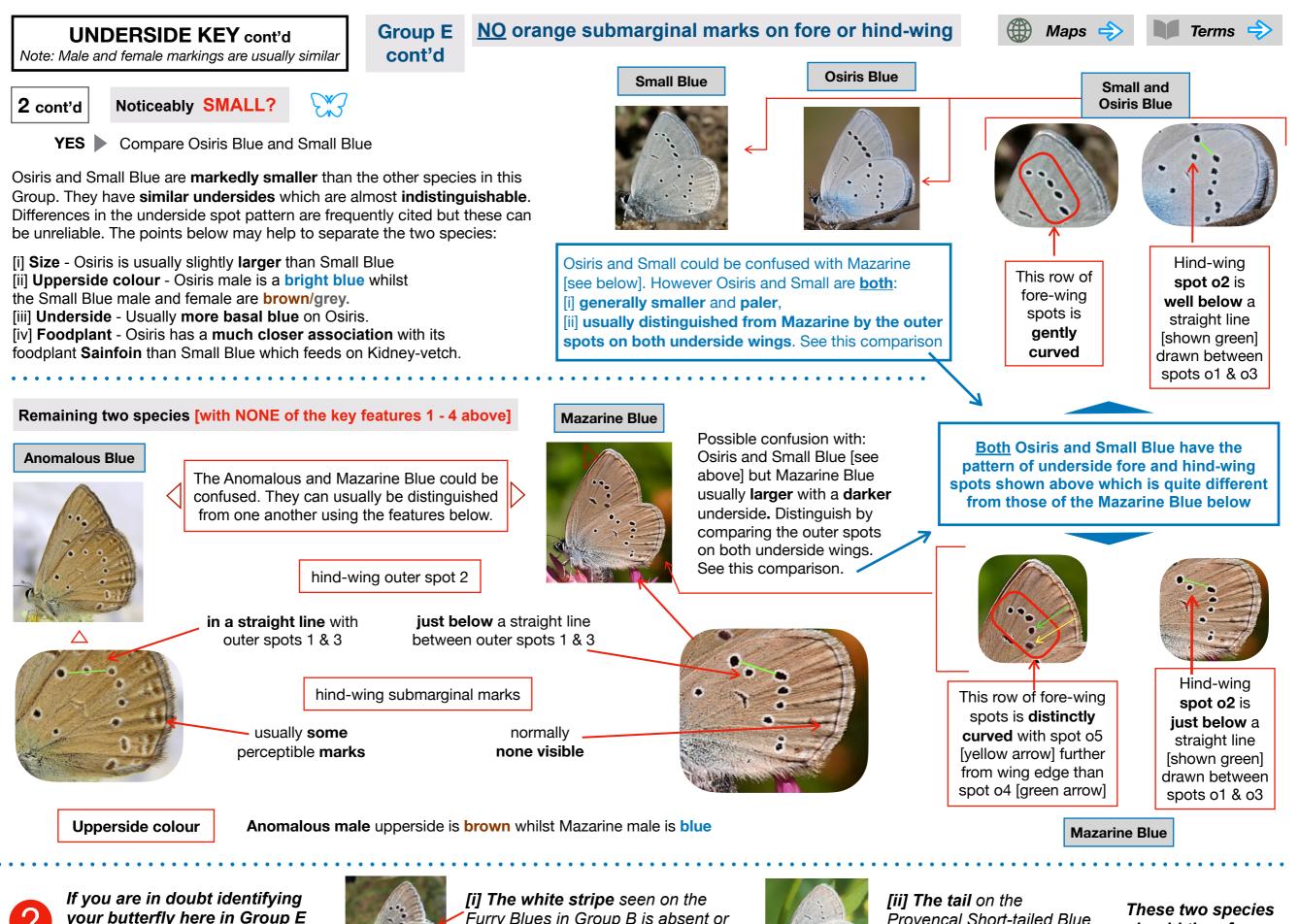


There is usually little noticeable blue scaling on the hind-wing. This is often one of the best ways of distinguishing male Idas from male Silver-studded Blue.



Note: <u>Cranberry Blue</u> usually has blue/silver scales in its hind-wing submarginal marks but is easily identified having: [i] this prominent submarginal orange mark in s6, [ii] no orange marks on the fore-wing.





your butterfly here in Group E you may have keyed through to this page because:



[i] The white stripe seen on the Furry Blues in Group B is absent or very faint in the races found in south east France, Italy and Catalonia,

[ii] The tail on the <u>Provençal Short-tailed Blue</u> in Group A can be hard to see due to wear.

These two species should therefore be considered.

## UNDERSIDE

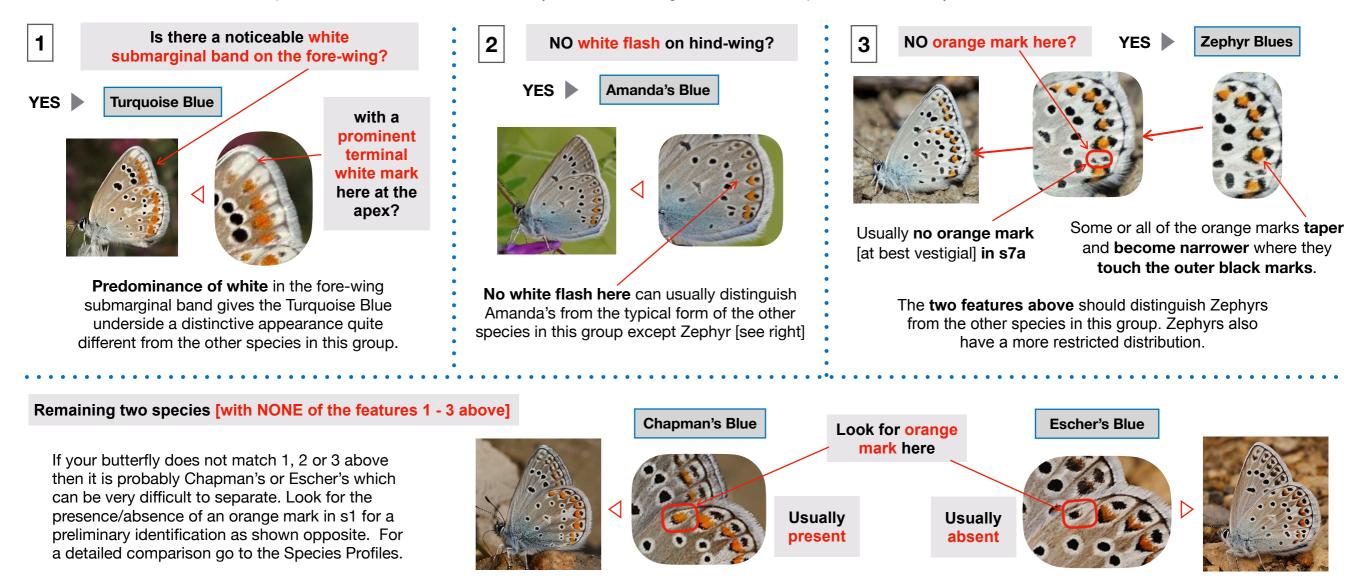
## Group F NONE of the key features 1-7 on the starting page and with NO fore-wing cell spot

Maps

Terms

**KEY cont'd** Note: Male and female markings are usually similar

If you have keyed to this point and can be certain there is **no cell spot** on the underside fore-wing of your butterfly then it is likely to be one of the five species below. Look for **each of the features numbered 1 to 3 below in sequence** which may identify your butterfly. If **none** of these features seem to apply then it is probably one of the remaining two species, Chapman's or Escher's, which are compared in the last section below. Finally, use the links to go to the detailed Species Profiles to try and confirm identification.



#### If the presence or absence of a fore-wing cell spot cannot be confirmed then consider :

**Common/Southern Common** and **Eros** [which typically have a fore-wing cell spot], keeping in mind that the features of the Group F species shown above help to separate those species from one another and **not** to distinguish them from Common/Southern Common and Eros. See Species Profiles for a detailed comparison.



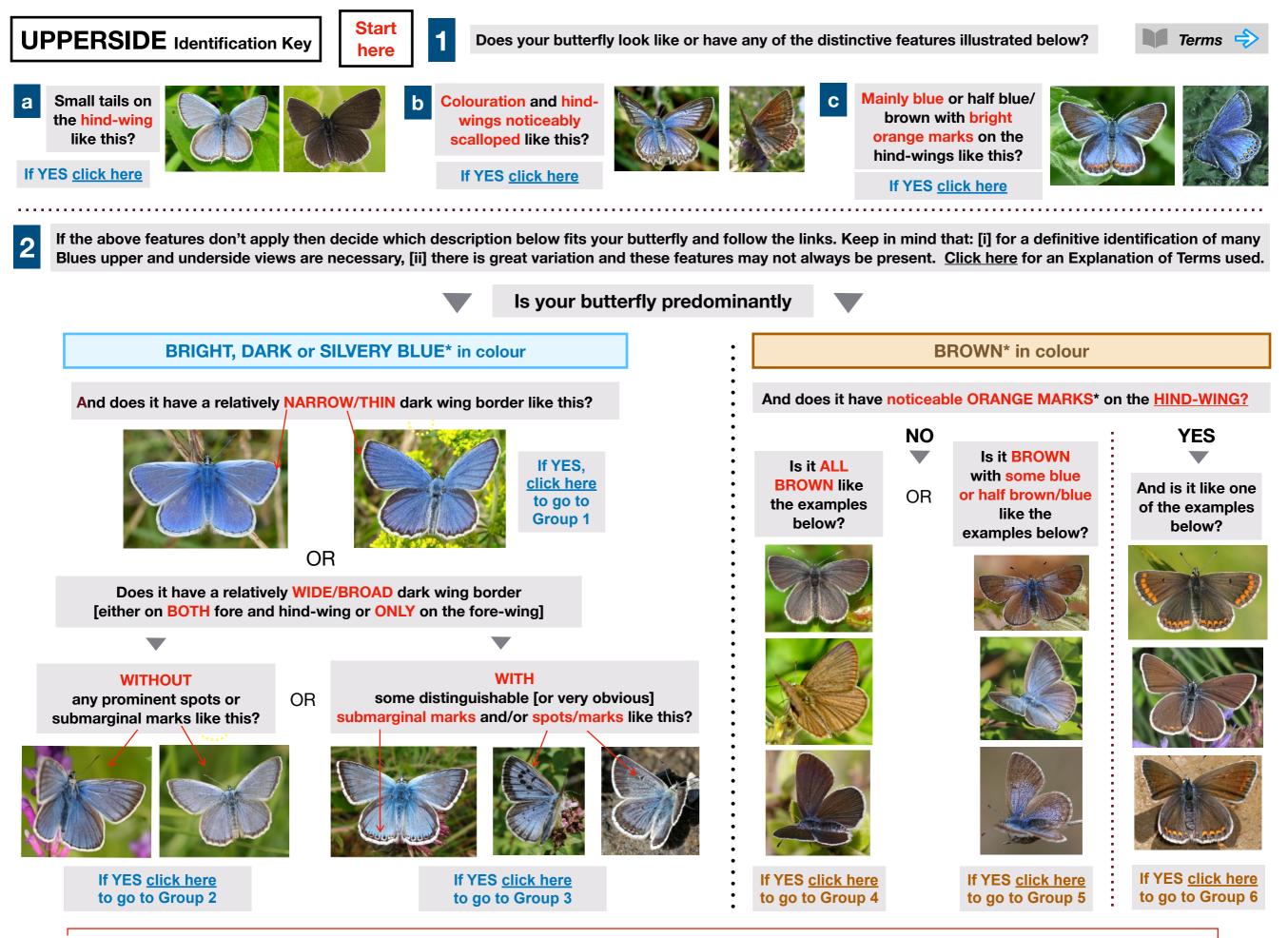
[i] **The silver scales** on the species in Group D are **sometimes not visible** due to the angle of lighting/viewing. Some of these Group D species, which all have no fore-wing cell spot, should therefore be considered as possibilities. <u>Click here to go to Group D</u>.

[ii] Sometimes **the fringe lines** on <u>Adonis</u> and <u>Chalkhill</u> are **very faint or absent** and the fore-wing cell spot [present on both species] is not visible. That may be the case with your butterfly thus making both species possibilities. <u>Click here</u> to go to the Species Profiles for detailed comparisons.

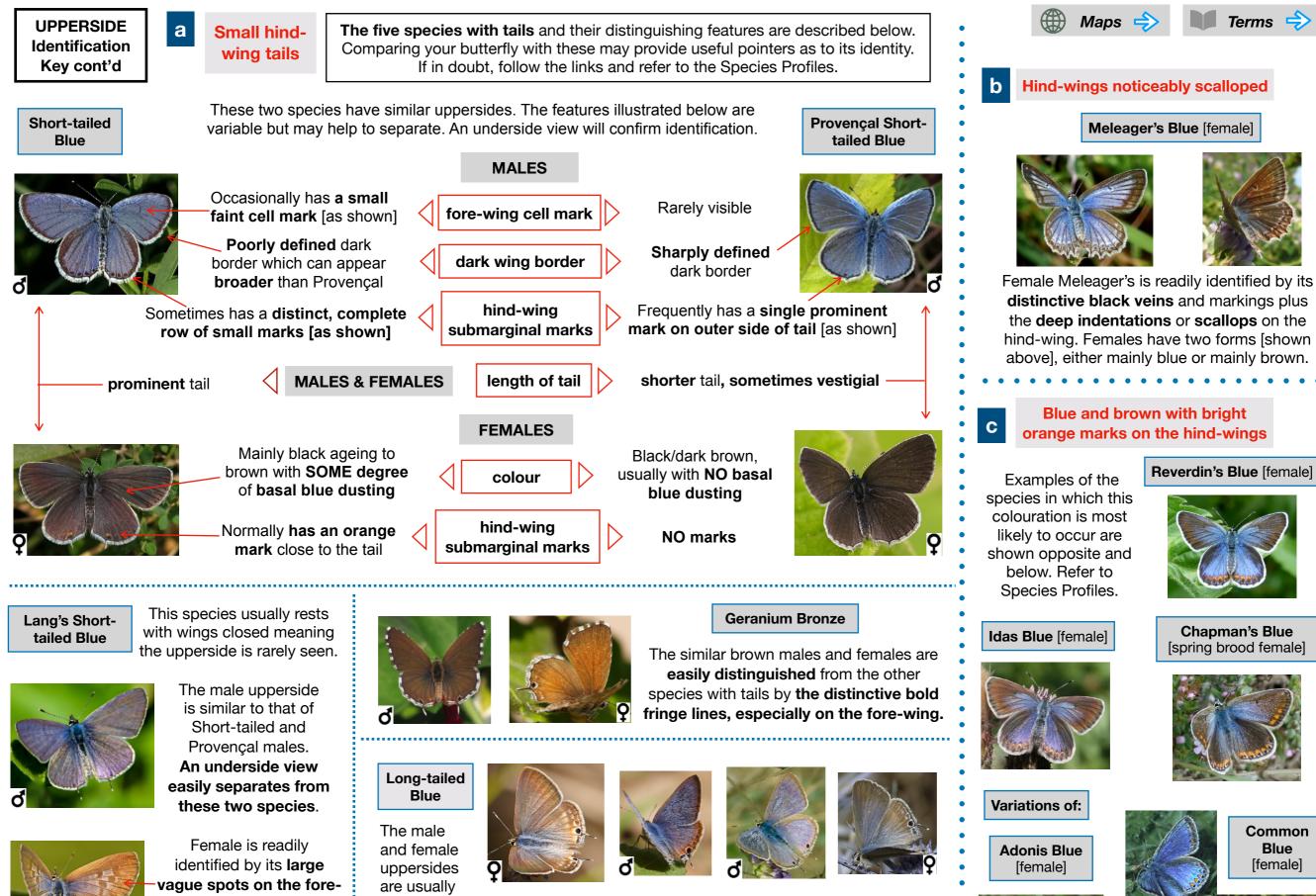


# **UPPERSIDE** Identification Key





keep in mind that colour is dependent on lighting and viewing angle; making blue scaling appear lighter/darker/silvery and orange marks appear yellowish or nearly red



wing. Also usually has blue basal dusting and two dark submarginal marks close to the tail.



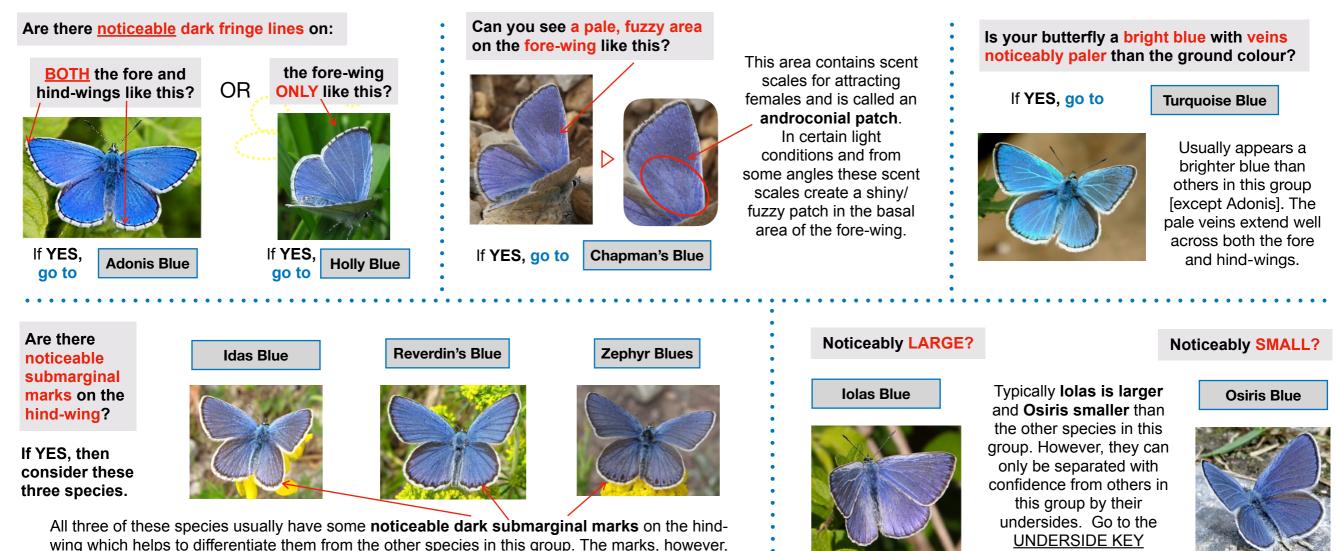
differentiated from the other species with tails by the one or two [sometimes there are more] prominent, roughly circular dark submarginal marks with white outlines close to the tail. Examples are shown in the photographs above. The boldest of these marks is normally the one on the outer side of the tail.

**UPPERSIDE** Identification Key cont'd

#### Group 1 BRIGHT, DARK or SILVERY BLUE with a relatively NARROW/THIN dark wing border

The uppersides of many of this group are variable and difficult to separate. Most will therefore require an underside view to make a positive identification. Nevertheless, comparing your butterfly with the features highlighted below may provide useful pointers as to its identity. Also, refer to the Species Profiles.

Note: For all of the species below it is the male that has a blue upperside. The exception is the Holly Blue with both sexes having blue uppersides



wing which helps to differentiate them from the other species in this group. The marks, however, can vary in shape and size from prominent marks to completely absent or merging to create a thicker border. They can therefore only be confidently separated from each other [and others in this group] by their undersides. Go to the UNDERSIDE KEY or refer to their Species Profiles.

Was your butterfly at high altitude, above 2000m?

**Alpine Blue** 

In the Central Alps the Alpine Blue usually flies in rocky places at around 2000m and higher.



The following three species can only be confidently separated from each other [and others in this group] by their underside markings. Go to the UNDERSIDE KEY or refer to their Species Profiles.



**Common Blue** 

or refer to their Species Profiles.

**Cranberry Blue** 

Maps 🔶

Terms 🔶



**Escher's Blue** 



UPPERSIDE Identification Key cont'd

Group 2

#### **BRIGHT, DARK or SILVERY BLUE with:**

[i] a relatively WIDE dark wing border [either on BOTH fore and hind-wing or ONLY on the fore-wing] and [ii] NO prominent submarginal marks or spots



Maps

The uppersides of many of this group are variable and difficult to separate. Many will therefore require an underside view to make a positive identification. Nevertheless, comparing your butterfly with the features highlighted below may provide useful pointers as to its identity. Follow the links and refer to the Species Profiles.

Notes: [i] For all of the species below it is the male that has a blue upperside. [ii] the wide border is usually a result of the dark border colour diffusing inwards.

If YES, then consider these four species.

#### Is the wing border fairly well defined like this?



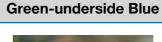
Alcon usually visibly larger than others in this group.





All of these species have similar uppersides. They usually have a fairly well defined dark wing border. This is often slightly wider on the fore-wing than the hind-wing and the fore-wing border generally widens towards the apex of the wing.

A view of the underside is necessary to separate these four species and make a positive identification.





**Black-eyed Blue** 

Black-eyed normally on the wing in April which is usually earlier than most species in this group.

#### Is the wing border very broad like this?



The broad dark wing borders diffuse inwards making them appear

somewhat ill defined.

**Damon Blue** 





YES NO



Silvery blue colour with very broad dark wing borders. Usually a dark cell spot on the fore-wing. Could be confused with Glandon Blue.

**Silvery Argus** 

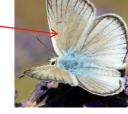


#### Is the ground colour very pale like this?

A pale greyish silvery blue colour, sometimes almost white, with a large brown androconial patch here.







Are the veins noticeably darker than the ground colour right across the wings?

#### Mazarine Blue

Veins usually stand out as dark lines across the whole wing. The dark wing borders are diffuse [normally obscuring a row of dark submarginal hind-wing spots] and not well defined. This overall appearance is normally distinctive.





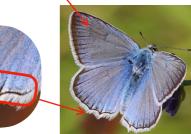
#### Does the hind-wing border have indentations like this?

#### **Meleager's Blue**

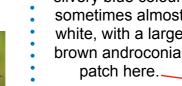
Normally two\* [as shown opposite ] distinctive scallops or indentations in the hind-wing border here. When looking along the thin black border line these indentations contrast with the smoother borders of other species in this group.

\*Note: sometimes only one scallop

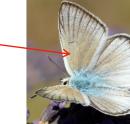
There is frequently a dull brown patch here on the fore-wing











UPPERSIDE Identification

Key cont'd

Group 3

#### **BRIGHT, DARK or SILVERY BLUE with:**

[i] a relatively WIDE dark wing border [either on BOTH fore and hind-wing or ONLY on the fore-wing] and [ii] **SOME** perceptible submarginal marks and/or spots



The uppersides of this group are variable. Some could therefore require an underside view to make a positive identification. Comparing your butterfly with the features highlighted below should provide useful pointers as to its identity. Follow the links and refer to the Species Profiles for more detailed information.

Notes: [i] the wide border is usually a result of the dark border colour diffusing inwards. [ii] beware confusion from shadows of marks showing through from the underside.

#### Are there noticeable dark fringe lines on both fore and hind-wings?

#### If YES, then consider these two species.

#### Chalkhill Blue [male]



Fringe lines on both wings, usually bolder on fore-wing. Dark submarginal marks on hind-wing normally have some degree of white surround.

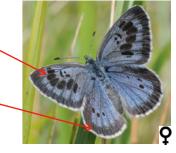


Prominent dark fringe lines on both wings. Generally has visible cell marks on both fore and hind-wing. Very similar to Chequered Blue



Male and female are similar. Both have: [i] a row of large spots on fore-wing and sometimes some smaller hind-wing spots, [ii] submarginal marks on both wings which the wing border often obscures [as shown here]. Generally larger than and easily identified from others in this group.

Large Blue [male & female]

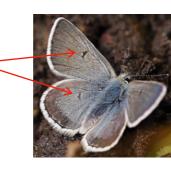


#### Is the ground colour a dark steely blue?



Generally a distinctive dark steely blue colour. Frequently there are visible cell marks on both wings sometimes with white surrounds. Usually some perceptible dark submarginal marks on hind-wing alongside white marks. Might be confused with Silvery Argus

#### Glandon Blue [male]



Normally found above c.1600m in Central Alps and Pyrenees

#### Is the wing border much broader on the fore-wing?

Is there a noticeable row of large spots on the fore-wing?



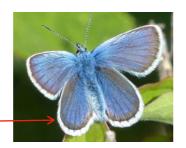
#### Holly Blue [female]

The wide fore-wing border is very prominent whilst the hind-wing border can be almost absent. Fore-wing border is usually even wider in the second brood. Normally some discernible dark submarginal marks on the hind-wing.



#### Silver-studded Blue [male]

The inner edge of the wide black border is not clear and merges with the blue. Dark submarginal marks are present on the hindwing but these can often be obscured by the wing border.

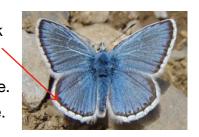




A relatively wide wing border with dark submarginal marks on the hind-wing. These marks can merge with the border and are not always clearly visible

Eros Blue [male]

Could be confused with Common Blue. Click here for a detailed comparison.





Second brood

**UPPERSIDE** Identification Key cont'd

#### Group 4

Terms 🔶

The female generally has a deep dark

brown ground colour but sometimes

has an appreciable amount of basal

blue dusting [as shown above]

The uppersides of this group are variable and can be difficult to separate. Most will therefore require an underside view to make a positive identification. Nevertheless, comparing your butterfly with the features highlighted below may provide useful pointers as to its identity. Also, refer to the Species Profiles.

> Blue dusting on the male Small Blue and female Osiris Blue might cause confusion with Group 5. Small and Osiris [female] are included here in Group 4 because of their similarity in colour and size.

> > Click here for a

detailed comparison

If YES, then consider these similar butterflies by looking for:

#### Noticeably SMALL?

If YES, then consider these two species.





Both sexes are dark brown/black and frequently look more slate grey than brown. Males may have a slight blue dusting [as shown above]

#### Veins noticeably darker than the ground colour?

An androconial patch on the basal half of the fore-wing

OR Submarginal dark marks on the the hind-wing

#### Anomalous Blue [male]

Ripart's Anomalous Blue [male]

Ripart's Anomalous Blue [female]



are virtually indistinguishable from one another. However, the presence of obvious dark

Furry Blues [female]



Maps 🔿



These males are indistinguishable from one another. They can generally be separated from others in this group by the androconial patch on their fore-wings. Location may help to differentiate. Click here

The females of these two species submarginal marks on the hind-

**Osiris Blue** [female]

wing would indicate the Furry Blue.

Note: The female Anomalous Blue is similar to the above butterflies but is placed in Group 6 because it frequently has orange hind-wing sub marginal marks.

Uniformly brown, sometimes with blue tinge in basal area and no submarginal marks?

#### If YES, then consider these four similar butterflies:







**Damon Blue** 

[female]



#### Geranium Argus [male]



Occasionally very faint orange submarginal marks are visible on the hind-wing. This may confuse with the female Geranium Argus [see Group 6]

#### Visible cell mark on both wings?

If YES, then consider





Female frequently has: [I] a noticeable dark cell mark on both wings. These are sometimes highlighted by a white surround, [ii] a few pale submarginal marks on the hind-wing.







# MAINLY BROWN but usually with some noticeable blue or half brown/blue with NO noticeable orange marks on hind-wing

🌐 Maps 🔶

The uppersides of this group are variable and can be difficult to separate. **Most will therefore require an underside view** to **make a positive identification**. Nevertheless, comparing your butterfly with the features highlighted below may provide useful pointers as to its identity. Also, refer to the Species Profiles.

Note: For all of the species below it is the female that has a brown/blue upperside. The exception is the Chequered Blue with both sexes being brown/blue.

#### Are there noticeable dark fringe lines on both wings?

#### If YES, then consider these two species.

#### Baton Blue



Female Baton Blue can be similar to both male and female Chequered Blue. A view of the underside may be required to separate.

Sexes are similar with widely varying amounts of blue. Females usually have less blue, sometimes almost none.

**Chequered Blue** 



If visible, the **pale surrounds** to the **submarginal marks** on the hind-wing will help distinguish from Baton Blue

#### Is there a fore-wing cell mark outlined in white?

If YES, then consider this species.

Alpine Blue



Alpine Blue is variable, but usually darkish brown with some basal blue scaling and a **dark fore-wing cell mark outlined in white**. Extent of blue varies and the cell mark can be absent.



Normally found in Central Alps above 2000m.

#### Noticeably LARGE?

### If YES, then consider these two species.



Alcon is dark grey/brown usually with noticeable blue basal scaling. Some **large dark spots** are present on the fore-wing but these are often faint or invisible.



Iolas Blue



These two species can only be confidently separated from

one another by their underside markings. Refer to their Species Profiles or go to the UNDERSIDE KEY

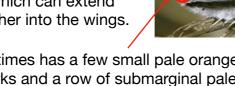
Iolas Blue generally appears half brown, half blue. Look for the presence of **dark submarginal marks** on the hind-wing, which can be faint.



Cranberry Blue



Usually very dark, almost black, with blue basal scaling which can extend further into the wings.



Hind-wing sometimes has a few small pale orange submarginal marks and a row of submarginal pale marks like thin white horizontal lines. **Black-eyed Blue** 



The blue basal scaling can vary greatly. It is often extensive but occasionally may be almost absent.



Generally noticeable basal blue scaling though this is variable. Fresh specimens have an almost black ground colour.





Green-underside Blue

UPPERSIDE Identification

Key cont'd

#### MAINLY BROWN but possibly some blue, and WITH noticeable orange marks on hind-wing

This group's uppersides are variable and difficult to separate. Most will therefore require an underside view for a positive identification. Nevertheless, comparing your butterfly with the features highlighted below might provide useful pointers. Also, refer to the Species Profiles.



Maps

Note: For all of the species below it is the female that has a brown upperside. The exceptions are Brown/Northern Brown Argus with both sexes having brown uppersides.

**Chalkhill Blue** 

#### Are there noticeable dark fringe lines on both fore and hind-wings?

#### If YES, then consider these two species.

Group 6



**Brown Argus** 

[male & female]

Adonis Blue

They can often be distinguished from one another by the colour of the outer part of the hind-wing submarginal marks.





The following features

[as shown here] should

in this group: [i] no blue,

[ii] **strong** submarginal

orange marks on both

wings, usually complete

rows on female, [iii] a dark

fore-wing cell mark, and [iv] sometimes fringe lines.

help distinguish from others

White



Click here for a detailed comparison

#### Northern Brown Argus [male & female]

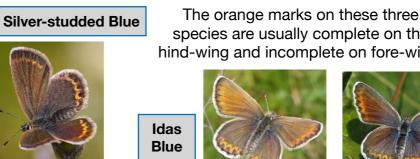
Darker brown with fewer and smaller marks than the Brown Argus. In northern

populations the fore-wing cell mark is frequently white.

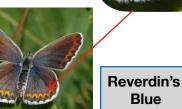
#### For a detailed comparison click here

#### Do the orange marks on hind-wing look arch shaped like this?

#### If YES, then consider these three species.



species are usually complete on the hind-wing and incomplete on fore-wing,



Blue

#### **Common Blue**



These two species are very similar. They usually have a dark fore-wing cell mark and orange submarginal marks which are more complete on the hind-wing than on the fore-wing. Blue scaling is variable, sometimes nearly 100% on Common Blue.

#### **Eros Blue**



#### Escher's Blue



Extent of the submarginal orange marks is variable. Generally more complete and stronger on the hind-wing than fore-wing.

Turquoise Blue

Orange marks very variable. Usually present on hind-wing. Sometimes absent from fore-wing [as shown above].

Zephyr Blues

#### Chapman's Blue



The orange marks are frequently incomplete, especially on the fore-wing [as shown above].

#### **Geranium Argus**



The orange marks on the hind-wing are usually present but small. Very similar to the male [see Group 4] which has virtually no orange marks.

#### Amanda's Blue

For a detailed comparison click here



On average, larger than the other species in this group. Orange marks are incomplete/vestigial on fore-wing.

#### **Anomalous Blue**



The orange marks can be very faint. The veins are normally distinctly darker than the around colour.





# **Species Profiles**

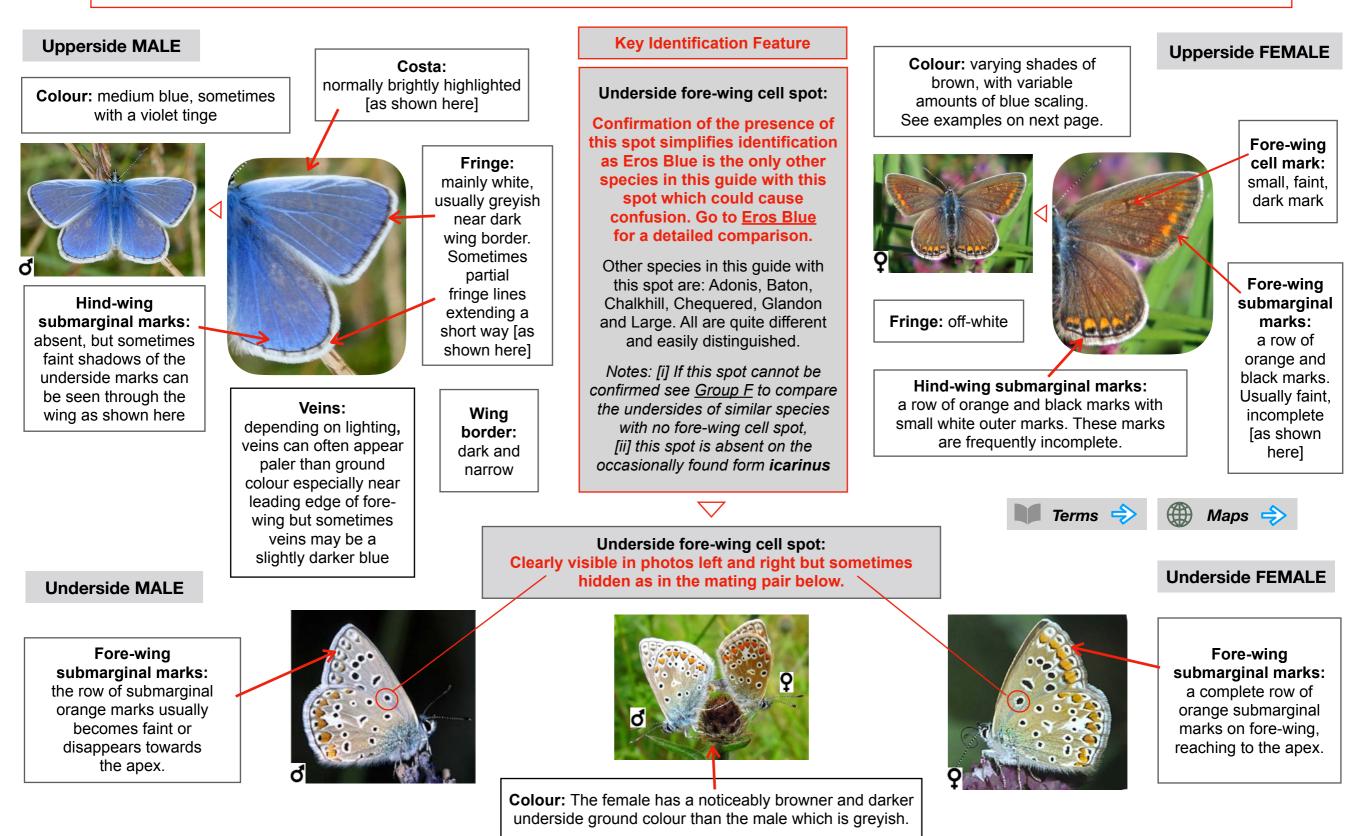


**Common Blue [Polyommatus icarus]** 

Southern Common Blue [Polyommatus celina]

The Common Blue is the most likely species to be encountered, being found in most habitats throughout Europe. It is virtually indistinguishable from the Southern Common Blue which DNA analysis has revealed is a separate species. The exact distribution of *celina* is uncertain but it is found in southern Spain, the Balearics, Sardinia and parts of Sicily. **Learning to recognise the Common/Southern Common Blue is worthwhile** as several other Blues can be identified by comparison with the typical form shown below.

The Common/Southern Common Blue displays great variation from the typical form described below. Examples of this variation are shown on the next page.

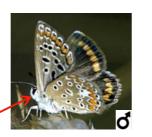


#### Common Blue [Polyommatus icarus], Southern Common Blue [Polyommatus celina] cont'd Terms 븢 Maps 🔶 **Examples of** The Common/Southern Common Blue is extremely variable in colour, markings and size and therefore should always be considered a possibility when identifying Blues. Below are examples of the main variations from the typical form described on the previous page. The features below can occur singly or in combination. Variation **Upperside MALE** broader wing arev partial vein border fringe some submarginal fringe lines darkening marks on hind-wing [especially in Spain] **Upperside FEMALE** bright overall fringe darker size and number of ground colour blue, more submarginal orange marks can be frequent in Extent of nearly black north and some blue scaling no cooler areas fringe fore-wing lines cell mark Extreme form sardoa, is linked to Corsica and strongly developed Sardinia although submarginal marks similar forms are these white marks can showing, orange, small. large complete found elsewhere also become blue black and white incomplete rows colour of orange marks ranges Spots can be: It is not uncommon to find Underside MALE and FEMALE Form *icarinus* from: brick red to pale yellow larger, bolder smaller aberrations with fused spots Aberrations with $\nabla$ $\nabla$ missing spots are sometimes seen including the form icarinus where the Q characteristic cell spot is Ground colour can be paler or absent. darker than the typical form fringe can be dark

#### Form boalensis



Form *boalensis* flies in northern Spain in acidic habitats. Males are a darker
blue with slightly wider wing borders and significant vein darkening. Females usually have dark wing fringes. Marks on both sexes are bold as seen on upper and underside of this female.



#### Form andronicus

Andronicus is found around Mt Phalakron and nearby mountains in Greece and Bulgaria. It is noticeably larger and a darker shade of blue.



#### Form mariscolore

Mariscolore occurs in northwestern Scotland and Ireland. Females have almost totally blue uppersides with the males said to be larger with bright blue uppersides. The Eros Blue, especially females, can be very difficult to distinguish from the Common/Southern Common Blue as considerable variation occurs in both species. The points below should help the identification process.



#### **Upperside MALE**



Colour: silvery reflective blue. Normally brighter than Common Blue.

Fringe: white



**Hind-wing** 

submarginal marks:

dark marks, not always clearly

visible, as they often merge

with the border. Presence of

these marks distinguishes

from Common Blue.

**Underside MALE** 

Wing border: dark broad border usually distinguishes from Common Blue



#### **Key Identification Features**

#### Underside fore-wing cell spot:

if this spot can be confirmed as present it simplifies identification, as the Common/Southern Common Blue is the only other species in this guide with this spot which could confuse.

Eros v Common/Southern Common

[i] Male Eros upperside is typically a brighter blue with a broader black border and some submarginal dark marks.

[ii] Eros is generally encountered at much higher altitudes than is usual for Common/Southern Common.

[iii] Females are best separated by probability - with reference to the number of identifiable males present.

[iv] Distribution - Eros has a more restricted range than the widespread Common/Southern Common [See Maps]

Note: Other species in this guide with a fore-wing cell spot are: Adonis, Baton, Chalkhill, Chequered, Glandon and Large Blue. All are quite different and easily distinguished from Eros.

 $\bigtriangledown$ 

#### Underside fore-wing cell spot:

#### Clearly visible in these photographs but sometimes hidden by the hind-wing

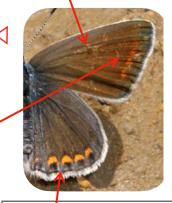
Notes: [i] As with the Common/Southern Common Blue this spot is occasionally found to be absent or very small. [ii] If this spot cannot be confirmed see Group F of the Underside Key to compare the undersides of similar species with no fore-wing cell spot.

#### **Upperside FEMALE**

Colour: varying shades of brown with variable amounts of blue scaling



Fore-wing cell mark: small, faint, dark mark



Hind-wing submarginal marks: a row of orange and black marks, often incomplete

#### Underside FEMALE

Fore-wing

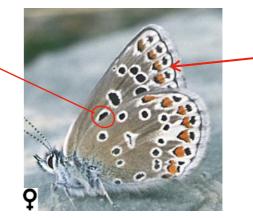
submarginal marks:

a row of orange and

black marks. Usually

faint, incomplete

[as shown here]



Fore-wing submarginal marks: usually a near complete row of orange submarginal marks on fore-wing reaching to the apex

#### Subspecies eroides [False Eros Blue]

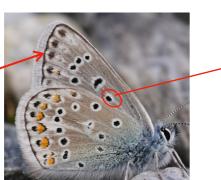


Eroides is localised, flying in northern Greece, the Balkans and rarely northwards to Slovakia and Poland. Overlap with eros is only possible in some parts of the Balkans. *Eroides* is very similar to eros with subtle qualitative differences, e.g. eroides is usually larger, males are less silvery blue, underside marks are bolder, and underside orange marks are more consistently orange not tending to yellow.



Subspecies menelaos

*Menelaos* is found only in the Taygetos mountains of the southern Peloponnese where eros is not present. Menelaos is very similar to eros although usually slightly larger.



#### Fore-wing submarginal marks:



#### Chapman's Blue [Polyommatus thersites]

**Upperside MALE** 

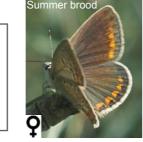


Fringe: white, no fringe lines Wing border: dark and narrow Androconial patch: androconia are scent scales for attracting females. In certain light conditions and from some angles they create a shiny/fuzzy patch in the basal area of the fore-wing. If an androconial patch is present this **reliably distinguishes** from <u>Common/</u> <u>Southern Common, Eros</u> and Escher's.

#### Upperside FEMALE



Submarginal marks: row of orange and black marks on both wings. These marks are frequently incomplete, especially on the fore-wing [as shown here]



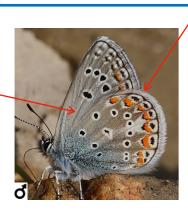
**Colour:** varying shades of brown with variable amounts of blue. More extensive blue scaling is most commonly found in the Spring Brood. Summer Brood is usually brown.

#### Underside MALE and FEMALE

**E** Female usually a browner ground colour, otherwise sexes are similar.



No cell spot here // distinguishes from <u>Common/</u> <u>Southern</u> <u>Common</u> and <u>Eros</u>



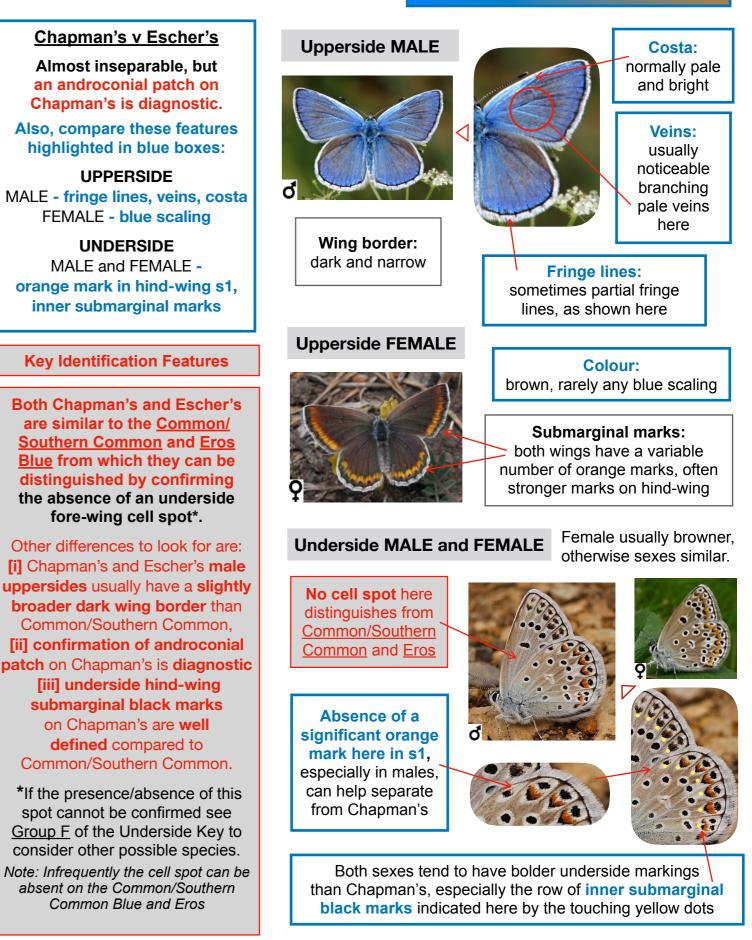


All submarginal hind-wing black marks usually have white surrounds dividing them from the orange mark whereas <u>Common/</u> <u>Southern Common</u> usually has **some** black marks **close to or merging** with the orange mark





#### Escher's Blue [Polyommatus escheri]



#### Amanda's Blue [Polyommatus amandus]

Veins: [i] some

vein darkening in

submarginal band,

[ii] principal vein in

basal area here

usually appears

very bright

Amanda's uppersides

are similar to several

other species. See

Group 2 for MALES and

Group 6 for FEMALES.

An underside view

is necessary for a

positive identification

Fringe: dull white

Submarginal marks:

rows of orange and black

marks usually more complete

on hind-wing than fore-wing



#### **Upperside FEMALE**

**Colour:** generally brown, usually with no blue scaling



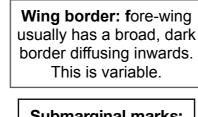


# where they are often absent. Only a few marks is typical of

#### Underside MALE and **FEMALE**



No cell spot here on fore-wing distinguishes from Common/-Southern Common and **Eros** 



Submarginal marks: sometimes faded marks on hind-wing

> Amanda's is, on average, noticeably larger than Chapman's, Escher's and Common/Southern Common Blue.

Maps

#### **Key Identification Features**

Amanda's Blue might be confused with a number of species. The UNDERSIDE features below are the most reliable way to distinguish.

[I] NO fore-wing cell spot: If enough of the underside fore-wing is visible to confirm the absence of this spot then this will usually distinguish from **Common/Southern Common** and Eros Blue

Note: Occasionally the cell spot can be absent on the Common/Southern Common and Eros Blue.

[ii] NO white flash on underside hind-wing: Absence of a white flash will usually distinguish from Chapman's and Escher's Blue. Click here for a comparison.

#### Form isias

Form isias is found amongst females in Fennoscandia which frequently have blue scaling on their uppersides.



Terms 🔶

#### **Cranberry Blue [Agriades optilete]**

Uppersides of both sexes are similar to

several other species [See Group 1 & Group 5].

Underside view necessary for identification

**Upperside MALE** 





#### **Key Identification Features**

Underside hind-wing submarginal mark s6: Prominent mark with blue scaling allows instant identification. This striking mark is diagnostic and creates a unique underside pattern quite different from any other species in this guide.

#### Habitat:

Usually found on heaths and moors in the vicinity of its foodplants, Cranberry [plus other species of Vaccinium], and Cross-leaved Heath [Erica tetralix]



Wing border:

dark and narrow

Colour: usually very dark,

almost black, with blue basal

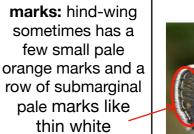
scaling which can extend

further into the wings



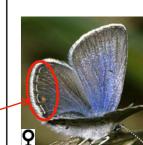






**Submarginal** 

horizontal lines

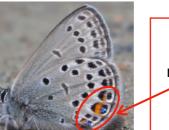


#### **Underside MALE & FEMALE**

Male and female are very similar

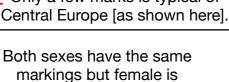


mark s6: prominent orange mark, usually with blue scaling



In addition to the prominent mark in s6 there are usually one or two other adjacent smaller orange marks with or without blue scaling [as shown here].

Note: the blue scaling in the marks can sometimes not be visible due to the angle of viewing.



browner with bolder spots

**NO** significant submarginal

orange marks on MALE fore-wing

could help distinguish from

Chapman's and Escher's Blue

No white

flash here on

hind-wing is

an important

identifying

feature.



#### Silver-studded Blue [Plebejus argus]

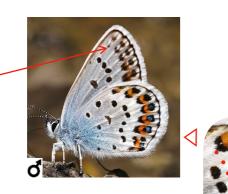
#### **Upperside MALE**



Hind-wing submarginal marks: normally black marks somewhat obscured by dark border

**Underside MALE** 

Fore-wing submarginal marks: row of orange marks on fore-wing is typically incomplete. This can help to distinguish from male <u>Reverdin's</u>.

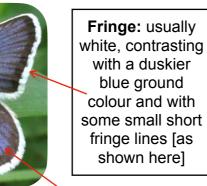


Hind-wing inner submarginal marks: band of white inner submarginal marks here [traced by the red dots] may **sometimes be noticeably bright**. If this band is visible it should help in distinguishing from <u>Reverdin's</u>.

#### Subspecies corsicus

This subspecies is local in Corsica. The male underside is yellowish with vaguer markings and females usually have some blue scaling on the upperside.

Wing border: typically broad and dark spreading inwards. This may help to differentiate from <u>Idas</u> and <u>Reverdin's</u> thinner borders.



Veins: generally some partial vein darkening [as shown here]

Key Identification Feature

Blue/silver scales in underside hind-wing submarginal marks:

These 'blue/silver studs' are usually present in <u>ONE or more</u> of the hind-wing submarginal marks. Sometimes they are: [i] NOT VISIBLE depending on the angle of viewing/lighting or [ii] completely absent.

The other species in this guide with 'blue/silver studs' which can confuse are <u>ldas</u> and <u>Reverdin's</u>. Click below for a detailed comparison of:

[i] Silver-studded v Idas [ii] Silver-studded v Reverdin's

[iii] <u>Silver-studded v Idas v Reverdin's undersides</u>

Cranberry also has 'silver studs' but is easily identified.

Note: Other frequently cited ways of distinguishing Silver-studded from Idas and Reverdin's are: [i] the presence of a tiny foreleg spine on Silver-studded, [ii] the shape of the underside submarginal dark marks.

The reliability of these two features is, however, considered uncertain as: [i] observing the small spine accurately is not practical, and [ii] the underside submarginal marks are extremely variable.

> Blue/silver scales: these are usually present in <u>ONE or more</u> of the underside hind-wing submarginal marks

#### Form hypochionus

*Hypochionus* is larger and flies in central and southern Spain and northern Portugal.

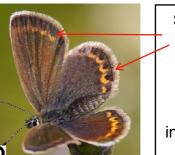


Males have bright blue uppersides and a pale, almost white underside ground colour. Females have almost complete rows of upperside orange submarginal marks.





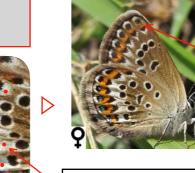
**Colour:** various shades of brown. Usually little or no blue scaling but can be extensive.



Submarginal marks: arch shaped orange marks containing a black spot, typically a complete row on hind-wing and faint/ incomplete on fore-wing [as shown here]

**Fringe:** usually brown/grey which might distinguish from <u>Reverdin's</u> white fringe

#### Underside FEMALE



Female differs from male by usually having [i] a complete row of orange marks on the fore-wing, and [ii] a darker ground colour

 Hind-wing inner submarginal marks:
 band of white marks [traced by red dots] is usually very conspicuous. This will help to distinguish from <u>Reverdin's</u>.

#### Form aegidion

Aegidion is found at high altitude in the Central Alps. The males have broader – dark wing borders.



is us help Form

Silver-studded Blue can be difficult to distinguish from Idas and Reverdin's

as it shows great variation across its wide range with numerous regional forms having been described. The points below should help the identification process.





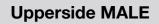
#### **Reverdin's Blue [Plebejus argyrognomon]**

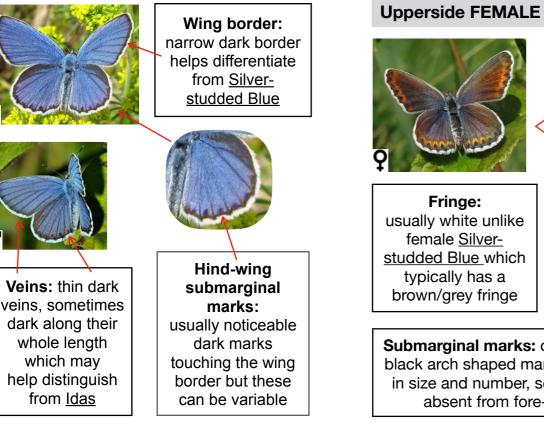
#### Reverdin's Blue can be difficult to separate from Idas and Silver-studded. The comparisons and features highlighted below should help the identification process.

Colour: various shades of

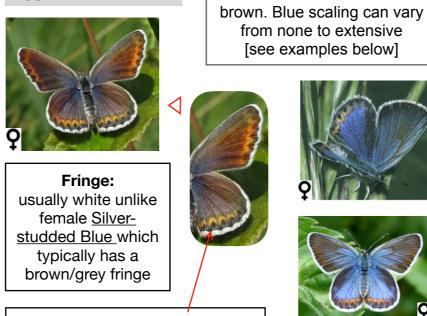
[see examples below]











Submarginal marks: orange and black arch shaped marks varying in size and number, sometimes absent from fore-wing



## **Underside FEMALE**



NO noticeable band of white inner submarginal marks here. This can help to separate from female Silverstudded Blue.

## Blue/silver scales in underside hind-wing submarginal marks: These 'blue/silver studs' are usually present in

**Key Identification Features** 

ONE or more of the hind-wing submarginal marks. Sometimes they are NOT VISIBLE depending on the angle of viewing/lighting.

The other species in this guide with this feature which can confuse are Idas and Silver-studded. A detailed comparison with both is given below.

Cranberry also has 'silver studs' but is easily identified.

#### Reverdin's v Silver-studded

**Reverdin's:** 

- MALE upperside wing border is narrower
- MALE underside fore-wing has a complete row of orange submarginal marks
- FEMALE has a white fringe
- · FEMALE underside hind-wing has no noticeable band of white inner submarginal marks
- MALE and FEMALE undersides look paler
- MALE and FEMALE usually larger than Silver-studded.

Note: Due to variation the above features are best used in conjunction to assess the probability of identity. Taken singly they are not reliable.

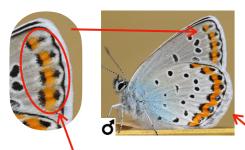
#### **Reverdin's v Idas**

Reverdin's:

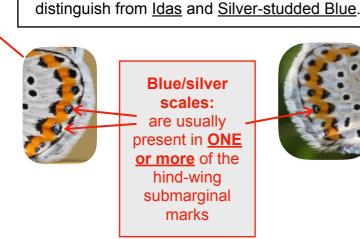
- · MALE upperside sometimes has thin veins which are dark along their whole length
- MALE underside fore-wing has a complete row of orange submarginal marks
- MALE and FEMALE undersides have a more uniform pale ground colour than Idas.

Note: The shape of the underside submarginal dark marks is often cited as a distinguishing feature. This is considered unreliable as the marks are extremely variable.

## **Underside MALE**



Fore-wing submarginal marks: normally a complete row of orange marks on forewing of males, even though they may fade slightly in colour towards the top of the wing. This will usually differentiate from male Idas and male Silver-studded Blue.



Reverdin's is generally a lowland species, rarely found above 1000m

**Colour:** male underside is normally uniformly

pale with a little blue at the base. Female is also

pale but slightly darker and brownish. The pale

appearance of this uniform ground colour can be conspicuous in the field and can help to

<mark>Idas Blue [Plebejus idas]</mark>

Idas can be difficult to separate from Reverdin's and Silver-studded Blue. The points below should help identify. Idas displays considerable variation with many regional forms across its wide range. In the Central Alps Idas has a fairly consistent appearance and so this race might be considered as the 'standard' form. This race is illustrated below.



#### **Upperside MALE**



Wing border: Usually a narrow dark border which can help to differentiate from Silver-studded Blue



Hind-wing submarginal marks: varying from completely absent to:

noticeable merging and triangular creating shaped marks thicker border



#### Underside MALE and FEMALE



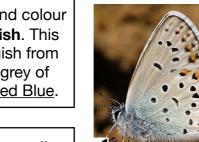
Colour: ground colour pale brownish. This can distinguish from shiny pale grey of Silver-studded Blue.

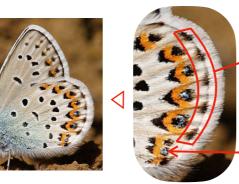
Both sexes have less basal blue scaling on hind-wing than Silver-studded Blue

#### Subspecies nevadensis



Nevadensis flies in Sierra Nevada, southern Spain. It has stronger underside markings and numerous submarginal marks with blue/silver scales. Male uppersides are a deeper blue with wider dark wing borders.



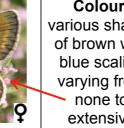


#### Subspecies bellieri

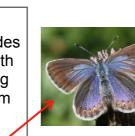


Bellieri has very bold underside markings and is found on Corsica and Sardinia. Male uppersides are a duskier blue with very broad dark wing borders.

#### arch shaped orange marks containing a dark spot, typically a complete row on hind-wing and incomplete/ faint on fore-wing Colour:



various shades of brown with blue scaling varying from none to extensive



Submarginal marks:

Male and female are similar but female is usually somewhat browner

**Upperside FEMALE** 



Blue/silver scales: are usually present in ONE or **more** of the hind-wing submarginal marks

#### Form calliopis

Calliopis occurs in the Rhone valley of Switzerland and the Alps of southeastern France, generally below 1000m and with a particular habitat requirement; hot, dry locations close to its foodplant Sea Buckthorn [Hippophae rhamnoides]. It is larger and typically has smaller underside spots.

## **Key Identification Feature**

Blue/silver scales in underside hind-wing submarginal marks:

These 'blue/silver studs' are usually present in ONE or more of the hind-wing submarginal marks. Sometimes they are NOT VISIBLE depending on the angle of viewing/lighting.

The other species in this guide with this feature which can confuse are Reverdin's and Silver-studded. For a detailed comparison with Reverdin's click here or see below for Silver-studded.

Cranberry also has 'silver studs' but is easily identified.

#### Idas v Silver-studded

Idas MALE upperside:

- typically has a narrower wing border
- is generally a **brighter** blue
- · usually without prominent dark veins
- has more blue in hind-wing area shown below:

Idas

Idas usually has



noticeable blue scaling in the area bounded yellow and green especially in the lower section towards the green line. Silver-studded is generally darker overall in this area with no blue scaling in upper section and some blue patches near the green line.



Idas MALE & FEMALE underside:

- ground colour is pale brown compared to shiny pale grey of Silver-studded
- Idas MALE & FEMALE underside hind-wing:
- has noticeably less basal blue scaling
- has bigger dark vein end marks on border.

N.B. Due to variation, all the above features are best used in conjunction to assess the probability of identity. Taken singly they are not reliable.



**Upperside MALE** 

Wing border:

dark and narrow

**Upperside FEMALE** 

Colour: brown.

sometimes a little blue



Veins:

normally

some vein

darkening

here



**Turquoise Blue** 

uppersides may be

confused with several

other species. See

Group 1 for MALES and

Group 6 for FEMALES.

An underside view

is necessary for a

positive identification

Key Identification Features

**Turquoise Blue's distinctive UNDERSIDE features should** 

readily identify.

[i] Underside fore-wing

submarginal marks:

The predominance of white in

these marks including a

prominent white terminal mark

at the apex gives the Turguoise

Blue a distinctive appearance.

[ii] Heart shaped orange marks

on underside hind-wing:

The inner dark submarginal

marks on the hind-wing are

usually very small or absent.

#### Holly Blue [Celastrina argiolus]

**Upperside MALE - both broods** 

Generally has two broods, April-June, and July-August



Fringe lines: usually complete dark lines on fore-wing only

Wing border: dark, narrow, widening towards the apex

Could be confused with male Adonis Blue. However, Adonis generally has fringe lines on **both** fore and hind-wing.

#### Key Identification Features

Fringe lines or 'chequering': noticeable dark fringe lines on upperside and underside fore-wing of both sexes.

Wide dark wing borders on FEMALE upperside fore-wing Prominent wing borders on both broods of females.

Unique underside pattern of markings: Although variable, the elongated fore-wing spots and hind-wing spots without white surrounds are unlikely species in this guide.

**Behaviour:** Holly Blue is usually found flying around bushes/shrubs

above ground level.

đ

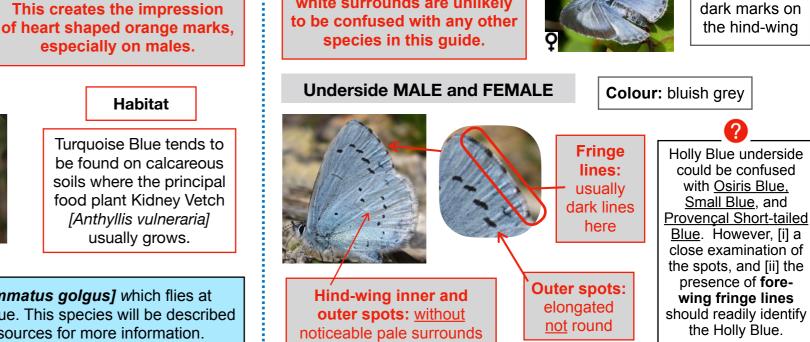
#### **Upperside FEMALE**



Wing border: the wide forewing border is very prominent whilst the hindwing border can be almost absent.



Submarginal marks: row of dark marks on the hind-wing



scaling in basal area Submarginal marks: rows of orange marks on both wings. Usually more complete on hind-wing than fore-wing where they are often absent or incomplete. Sexes similar but female usually Underside MALE & FEMALE browner with bolder markings

Hind-wing

submarginal marks:

often some very small

marks in the upper

edge of hind-wing





submarginal marks can appear heart shaped (

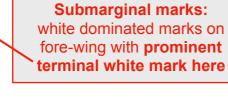


Turquoise Blue tends to be found on calcareous soils where the principal food plant Kidney Vetch [Anthyllis vulneraria] usually grows.

Habitat

Similar 'Local' Species that might confuse is Nevada Blue [Polyommatus golgus] which flies at high altitudes in southeastern Spain outside the range of Turguoise Blue. This species will be described in detail in part 2 of this guide. See Introduction. Please refer to other sources for more information.





**Colour:** almost as bright a blue as the Adonis Blue.

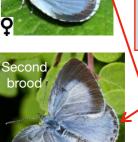
Veins: veins

in basal area

here usually

appear bright





The three Zephyr Blues below are found in separate regions of Europe and are part of a wider group. The Alpine Zephyr Blue is probably the best known and the Key Underside Identifying Features described on its typical form below are common to all three species. The other features shown are present to a greater or lesser extent on all three species.

Alpine Zephyr Blue [Kretania trappi]

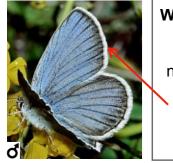
Found locally in the Central Alps

#### Upperside MALE



Veins: sometimes has noticeable dark veins on both wings

Hind-wing submarginal marks: usually a number of dark marks which can vary in shape and size



Wing border: dark and relatively narrow. This is variable and can diffuse inwards.



Behaviour

Often found on

Milk-Vetch

[Astragalus species]

the common

foodplant of all

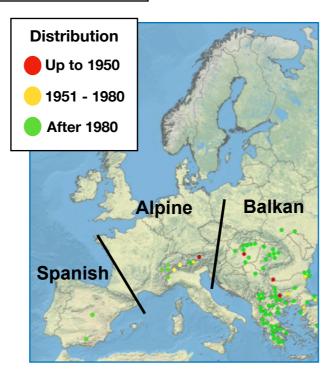
three Zephyrs.

Colour: brown,

Submarginal marks: number and size of orange marks is variable. Usually present on the hindwing, sometimes on the fore-wing.



Zephyr Blue uppersides may be confused with several other species. See <u>Group 1</u> for MALES <u>Group 6</u> for FEMALES. **An underside view is necessary for a positive identification** 



#### Key Identification Features

Zephyr Blues might be confused with a number of species. The UNDERSIDE features below are the most reliable way to distinguish.

[i] NO fore-wing cell spot: If enough of the underside fore-wing is visible to confirm the absence of this spot then this will usually distinguish from <u>Common/Southern</u> <u>Common</u> and <u>Eros Blue</u>

[Note: Occasionally the cell spot can be absent on the Common/Southern Common and Eros Blue]

[ii] Underside hind-wing submarginal marks:

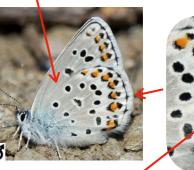
[a] Usually NO submarginal orange mark in s7a

[b] orange marks taper towards the outer black marks. **Underside MALE & FEMALE** 

Maps 🔶

Sexes similar but female is usually browner

**No cell spot** here distinguishes from <u>Common/</u> <u>Southern Common</u> and <u>Eros</u>



Terms 🔶

Usually **no orange mark** here [at best vestigial] **in s7a.** This is probably definitive.

Some or all of the orange marks **taper** and **become narrower** where they **touch the outer black marks** 

#### Balkan Zephyr Blue [Kretania sephirus]

Locally in southeast Europe through the Balkans to Greece.







#### Form brethertoni



Form *brethertoni* is most often found in southern Greece. Males have small orange/reddish patches next to the hind-wing black submarginal spots.

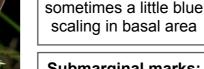
## Spanish Zephyr Blue [Kretania hesperica]

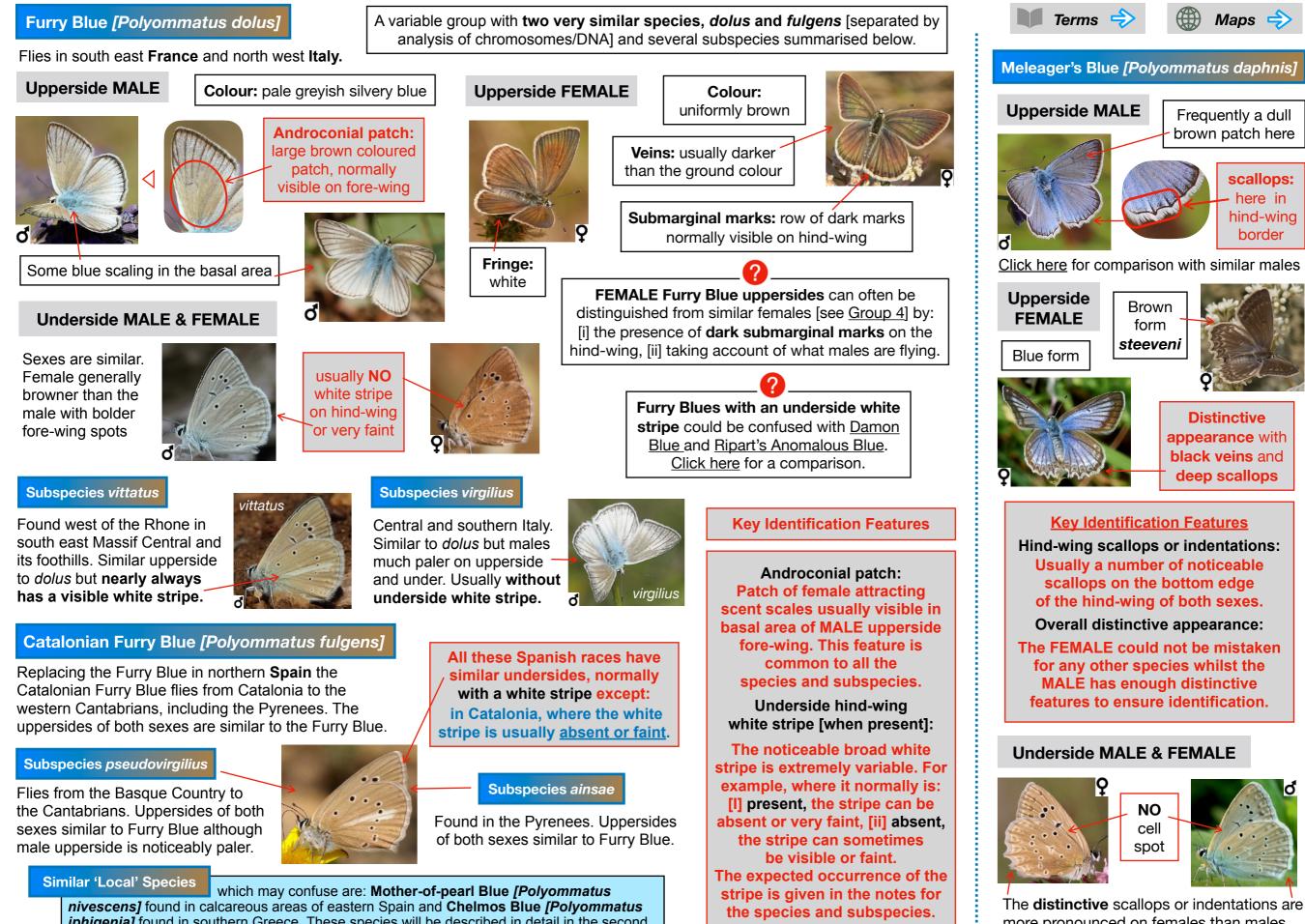
Found locally in the Tagus Valley and southern Sistema Ibérico [central Spain] and in a few mountain locations of southeastern Spain. The male is generally a brighter, lighter blue than *trappi*.





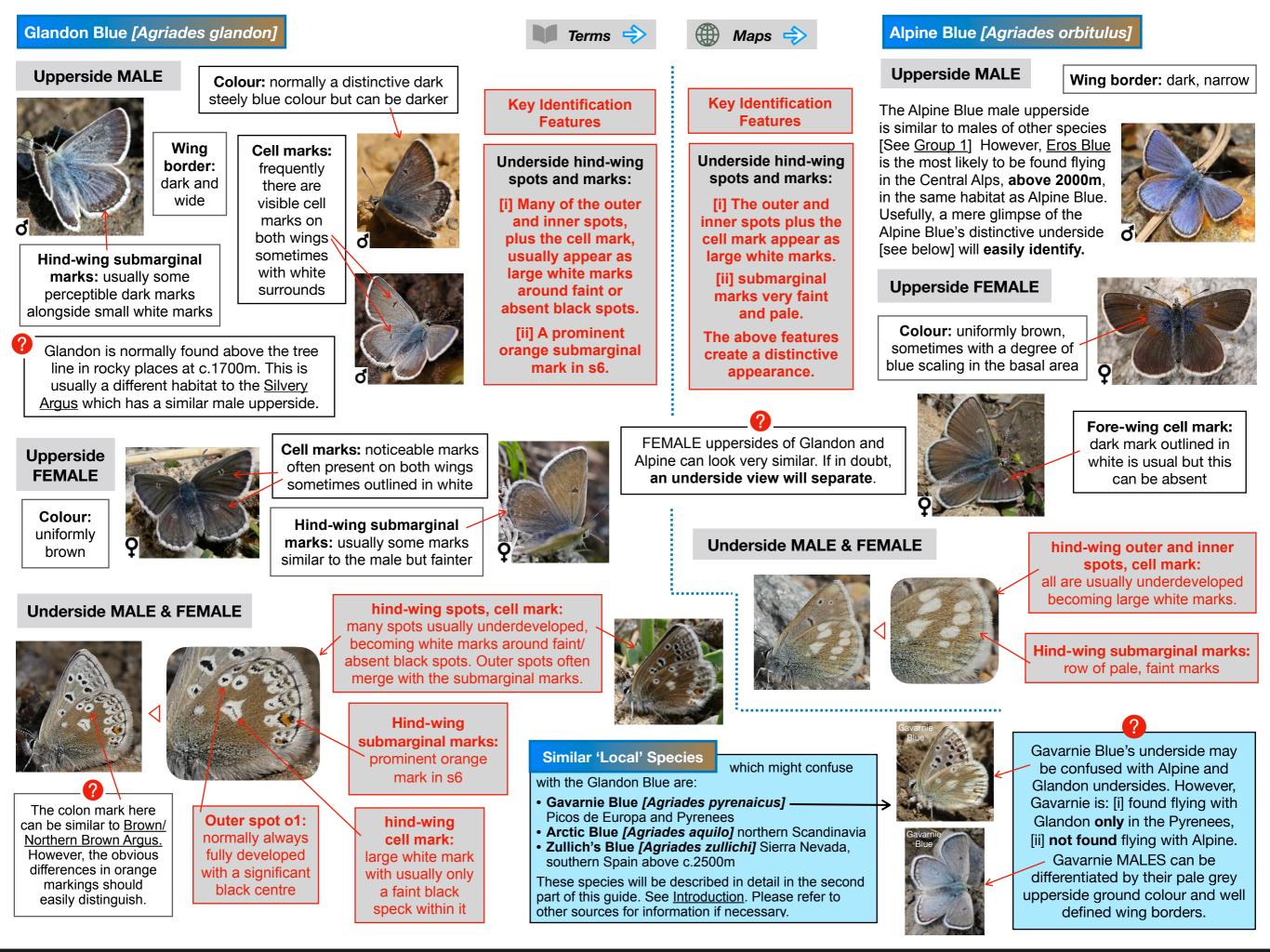




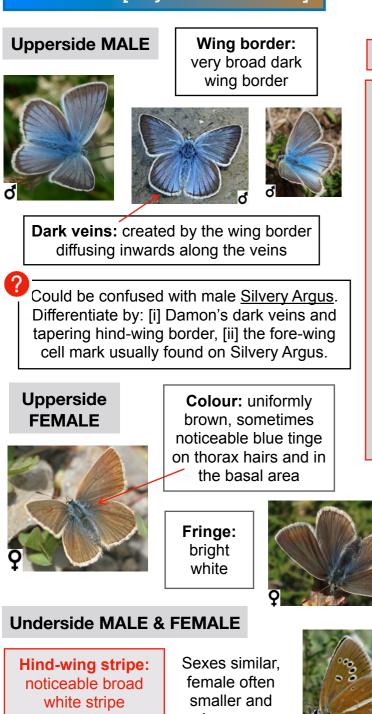


*iphigenia]* found in southern Greece. These species will be described in detail in the second part of this guide. See <u>Introduction</u>. Please refer to other sources for information if necessary.

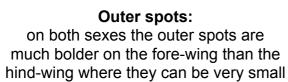
more pronounced on females than males. <u>Click here</u> for comparison within Group E.

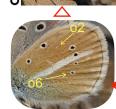


#### Damon Blue [Polyommatus damon]

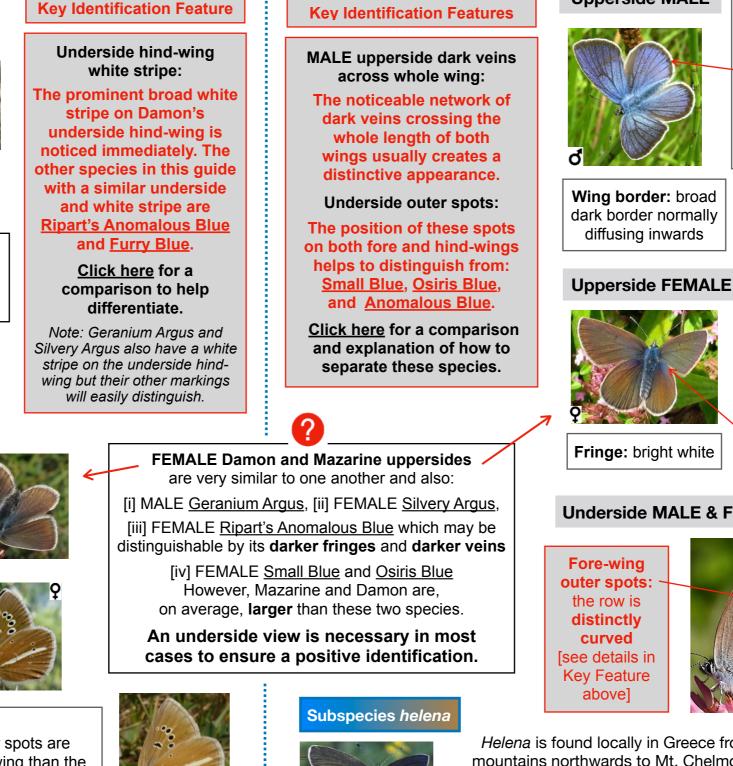








Hind-wing outer spots: on both sexes the number of spots is often reduced; o2 is frequently absent/vestigial and o6 is where the row usually ends



Maps 🔶

**Upperside MALE** 

Mazarine Blue [Cyaniris semiargus]

Hind-wina

submarginal

marks:

A row of dark

marks are

present but

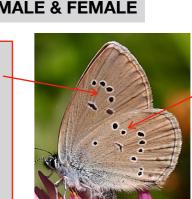
usually obscured

by the dark

wing border

Colour: uniformly brown, often a blue tinge in basal area

#### **Underside MALE & FEMALE**



Hind-wing outer spot o2: is just below a straight line between spots o1 and o3 [see details in Key Feature above]



*Helena* is found locally in Greece from the Taygetos mountains northwards to Mt. Chelmos. Mazarine Blue does not fly with helena which differs in having orange submarginal marks on the female upperside and also some orange marks on the underside of both sexes.



**Species** 

which might confuse is Pontic Blue [Neolysandra coelestina] found in southern Greece This species will be described in more detail in the second part of this guide. See Introduction. Please refer to other sources if necessary.





**Fore-wing** 

cell mark:

often a small

dark mark is

visible

Veins: normally stand out as dark lines across the whole of each wing





 $\wedge$ 

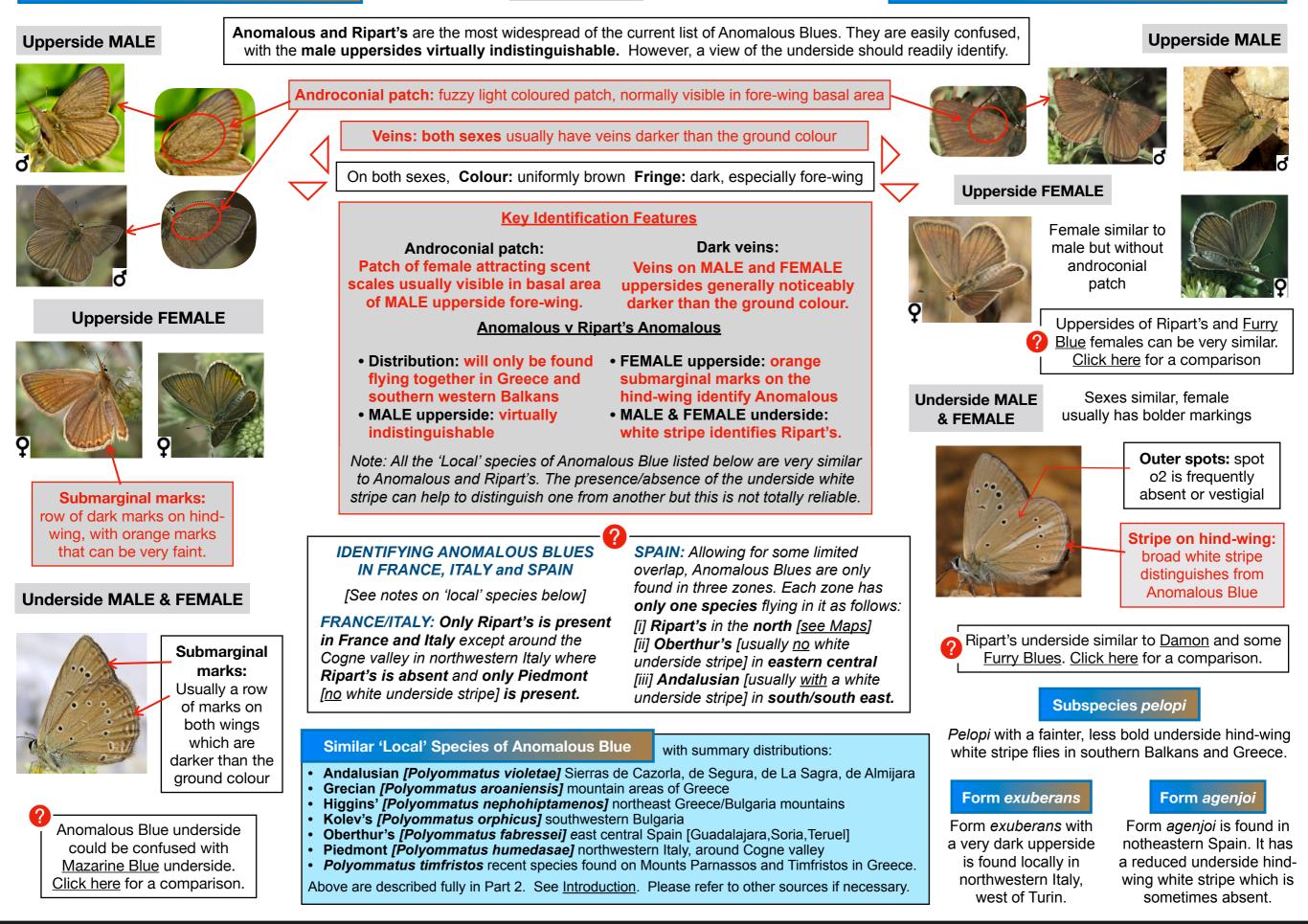
Terms 号

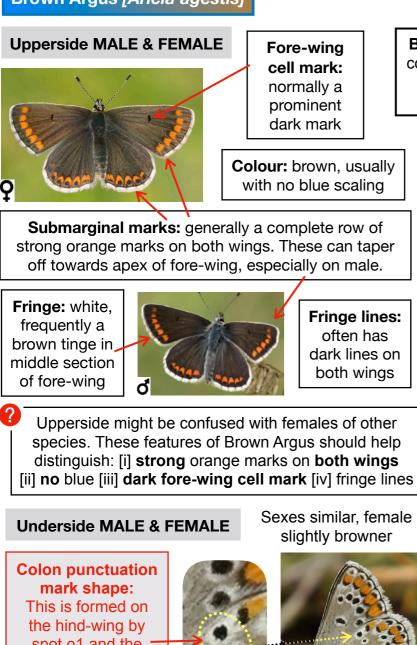












spot o1 and the displaced spot o2 which is sometimes only a tiny mark.



#### Southern Brown Argus [Aricia cramera]

Southern Brown Argus flies in the Iberian peninsula where it replaces the Brown Argus [except in parts of northern Spain]. It is similar but has brighter, bolder orange submarginal marks than Brown Argus, especially on females. The orange marks can appear as an unbroken orange band crossed by the dark vein lines. Note: Also found in Balearics and Sardinia.





Terms



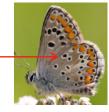
#### Northern Brown Argus [Aricia artaxerxes]

#### **Upperside MALE & FEMALE**

Sexes are similar, although: [i] females usually have more upperside orange submarginal marks, especially on the fore-wing, [ii] males can have much reduced [almost absent] orange submarginal marks.

#### **Underside MALE & FEMALE**

Sexes are similar with the distinctive colon punctuation mark shape on the hind-wing



Variation found in northern regions includes: [i] upperside fore-wing cell mark



can be white. [ii] black spots on underside can reduce to white patches.



#### Southern Mountain Argus [Aricia montensis]

Similar to Northern Brown Argus but rarely found flying together [see Location notes opposite]. Slight differences to look for are: [i] upperside often has more



complete orange submarginal marks, [ii] underside hindwing ground colour is greyish rather than brown.

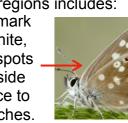


Similar 'Local' Species

are listed below:

- Blue Argus [Aricia anteros] Croatia south through Balkans to Greece
- Cretan Argus [Kretania psylorita] Crete
- Eastern Brown Argus [Kretania eurypilus] Greece
- Spanish Argus [Aricia morronensis] mountainous areas of Spain.
  - These species will be described in more detail in the second part of this guide. See Introduction. Please refer to other sources if necessary.









Brown and Northern Brown Argus are the most widespread species of a confusing variable complex with no reliable consistent features that can separate them across Europe. The notes and comparisons of 'typical' specimens below should help to identify using a combination of factors.

#### **Key Identification Feature**

Colon shaped feature on underside hind-wing [found on all four species on this page]:

This distinctive feature is created by outer spot o2 being displaced inwards from the row of outer spots. This produces a colon punctuation mark shape roughly at right angles to the adjacent wing edge. The position of spot o2 can vary but will never be part of a smoothly curved row of outer spots.

#### **Brown Argus v Northern Brown Argus**

Distribution: Significant differences [see Maps]

 Altitude: Brown Argus usually below 1000m, rarely above 1500m. Northern normally flies above c. 1000m in mountain regions of Europe and at lower altitudes in north Europe.

 Upperside submarginal orange marks: Both sexes of Brown Argus have almost complete rows on both wings. These marks are reduced in size/number on Northern [often just one or two]. On the male usually only present on hind-wing.

 Upperside colour: Brown Argus is brown whilst Northern can be dark brown, tending to almost black.

 Fringe: Brown Argus normally has dark fringe lines and its fringe often has a dark brown tinge. Northern frequently without these features or, if present, usually less prominent.

#### Southern Brown Argus v Southern Mountain Argus

- Upperside submarginal orange marks: Both sexes of
- Southern Brown generally have bolder and brighter marks • Underside hind-wing ground colour: Southern Brown is

usually brown compared to the grey of Southern Mountain.

### **IDENTIFY BY LOCATION**

#### SPAIN and PORTUGAL Present:

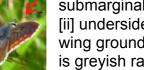
Southern Mountain Argus in mountains, Southern Brown Argus [except north west Spain] Absent:

Brown Argus [except Pyrenees], Northern Brown Argus.

**PYRENEES & CEVENNES** Present: Brown Argus, Northern Brown Argus, Southern Mountain Argus

Present: Brown Argus, Northern Brown Argus. See Distribution Maps

## **REST of EUROPE**



#### Silvery Argus [Aricia nicias]



Fore-wing cell mark:

generally a noticeable dark mark



Male and female are similar

Wing border: bright white

#### **Upperside MALE**

Colour: silvery blue ground colour





May be confused with male Glandon Blue. However, Glandon usually favours a rocky high altitude habitat above the tree line whereas Silvery Argus normally found in or around woodland above c. 1000m.

**Upperside FEMALE** 



Submarginal marks: None

Fore-wing cell mark: generally a noticeable small dark mark

Sexes similar, female

usually slightly browner

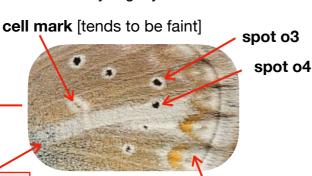
Wing border: very broad, dark brownish border

### **Underside MALE & FEMALE**



White stripe: Broad stripe runs below the cell mark and through outer spot o4. This positioning will distinguish from the Geranium Argus [see opposite].

Subspecies scandica



**Submarginal marks:** the faint orange marks are slightly darker than the ground colour but are usually guite obvious

Scandica flies in central Sweden and southern Finland. Uppersides of males are brighter with greyish, narrower dark wing borders.



#### **Key Identification Feature**

Underside hind-wing stripe:

The presence on the underside hind-wing of [i] a white stripe [positioned as shown below] and [ii] orange submarginal marks, will distinguish Silvery Argus from all other species in this guide.







Geranium Argus and foodplant

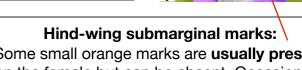
The uppersides of **FEMALE Silvery** Argus and MALE Geranium Argus are similar and may be confused with each other. They are also similar to the uppersides of FEMALE Damon Blue and FEMALE Mazarine Blue.

#### An underside view is necessary to make a positive identification.

Note: The uppersides of Anomalous Blue species are also similar. However, Silvery Argus and Geranium Argus probably never occur in the same habitat as Anomalous Blue species which usually favour hot, arid localities.







Some small orange marks are **usually present** on the female but can be absent. Occasionally very faint orange marks are visible on the male.

**Key Identification Features** 

#### Underside hind-wing stripe:

The presence of [i] a white stripe [positioned on underside as shown below] and [ii] orange submarginal marks, distinguishes Geranium Argus from all other species in this guide.

#### Foodplant:

Geranium Argus is closely associated with Geranium species, the larval foodplant. It is commonly found nectaring on these, especially Wood Cranesbill [Geranium sylvaticum].

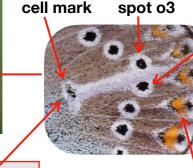
#### **Underside MALE & FEMALE**

Sexes similar, female usually slightly darker

spot o4



White stripe: broad stripe runs from the cell mark and between outer spots o3 and o4. This positioning distinguishes from the Silvery Argus [see opposite].



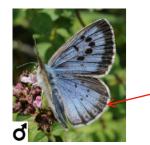
Submarginal marks: usually a complete row of orange marks on hind-wing





#### Large Blue [Phengaris arion]

#### Wing border: dark and wide. Usually more diffuse on the female.



Submarginal marks: row of dark spots on both wings which are often obscured by the border, especially on the forewing and on the female.



**Upperside MALE and FEMALE** 

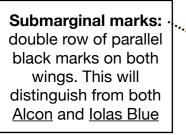
**Colour:** the normal lowland forms of both sexes have a dull

blue ground colour. However, the extent of dark brown/black

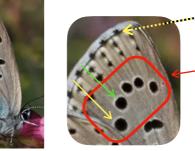
scaling varies greatly, generally increasing with altitude.

Outer spots: row of large dark oval spots on the fore-wing which are normally somewhat larger on the female. Diffusion of the wing border can obscure these spots. A few small dark spots may be present on the hind-wing.

#### **Underside MALE & FEMALE**



Male and female are similar.



#### Fringe lines: usually dark partial lines

Fore-wing outer spots: row of outer spots is distinctly curved with spot 5 [vellow arrow] normally further inwards from the wing edge than spot 4 [green arrow]. This distinguishes from lolas Blue.

#### Form obscura



Obscura has dark scaling covering roughly half the upperside. More extreme forms can also be found.



[i] larger and bolder underside markings [ii] double row of black submarginal marks

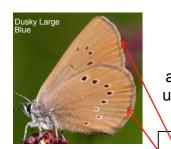
> on both underside wings [see opposite]. Also, note that: [a] lolas, unlike the Large Blue, has an almost straight row of underside forewing outer spots. Click here for a comparison.

[b] Alcon female uppersides can have visible large spots on the fore-wing which may appear similar to darker forms of the Large Blue.

#### Similar 'Local' **Species**

which might confuse are Dusky Large Blue [Phengaris nausithous] and Scarce Large Blue [Phengaris teleius] colonies of which are found across Europe. Although both species are usually always found on or close to their foodplant, Great Burnet [Sanguisorba officinalis], Large Blue can fly with both these species and also Alcon Blue. In fact all four can be found flying together. Dusky and Scarce rarely display their uppersides. To help distinguish see comparisons below. Note: Dusky and Scarce Large Blue will be described in more detail in the second part of this guide. See Introduction. Please refer to other sources if necessary.

#### Dusky Large Blue



Medium to dark brown ground colour. Usually easily distinguished from Large. Scarce Large

NO

submarginal

marks on

either wing

Differentiate male by: and Alcon by its underside colour and marks.

Note: these spots can be faint or absent

Uppersides of both

sexes are similar to

the Large Blue.

on fore-wing.

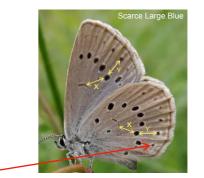
[ii] pale patches between the dark veins.



[i] smaller outer spots

#### Scarce Large Blue

Separate underside from Large Blue by: [i] the less bold inner submarginal marks, and [ii] the pale and shadowy outer parallel row of submarginal marks.





To distinguish Scarce Large from Alcon compare distances x and y between the marks shown above. On Scarce Large **x** roughly equals **y**, whilst on Alcon **x** is noticeably shorter than y. This difference usually more evident on fore-wing. Note: Cited differences in colour and spot size are considered unreliable.

#### **Key Identification Features**

Maps

Terms

Large size and large upperside fore-wing outer spots:

The uppersides of male and female are similar with prominent large dark forewing outer spots. Together with their large size, this generally makes the Large Blue easy to distinguish from the other species in this guide.



The Large Blue may be confused with Alcon Blue and lolas Blue, both of which can be large in size. Differentiate by Large Blue's:

#### **Upperside MALE**



#### **Upperside FEMALE**





**Outer spots:** 

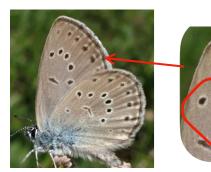
Wing border: dark, well defined, and relatively wide. Fore-wing border usually broadens slightly towards the apex of the wing.

**Colour:** variable, usually dark grey/brown with noticeable blue basal scaling



#### **Underside MALE & FEMALE**

Male and female are similar



#### Fore-wing outer spots: Row of spots is distinctly curved with spot 5 [yellow arrow] normally further inwards from the wing edge than spot 4 [green arrow]. This distinguishes from lolas Blue [see opposite].

#### Subspecies rebeli

Alcon and rebeli are very similar but have different foodplants, Marsh Gentian [Gentiana pneumonanthe] for Alcon and Cross Gentian [Gentiana cruciata] for rebeli, thus they have different habitats with rebeli usually being found at higher altitudes.

Note: Differences in the wing patterns are frequently cited as a means of separating alcon and rebeli. The reliability and consistency of these features are considered uncertain and therefore not included here.

The uppersides of these two variable species can be similar. An underside view is often required to make a positive identification.

#### **Key Identification Feature**

#### Size:

Alcon and lolas are, on average, noticeably larger than most of the other species in this guide, except the Large Blue.

#### Alcon v lolas

- MALE upperside: Alcon wing border generally appears broader than lolas.
- FEMALE upperside: Fore-wing outer spots indicate Alcon and hind-wing submarginal marks indicate lolas.
- MALE & FEMALE underside: [i] Row of fore-wing outer spots curved on Alcon and almost straight on lolas. [ii] Iolas usually has a much paler ground colour than Alcon.
- Foodplant: lolas has a close association with its main foodplant, Bladder Senna [Colutea arborescens], with males hunting females around the scattered shrubs.



Alcon and lolas might be confused with:

[a] the upper and undersides of **Black-eyed** and Green-underside Blue. However, both:

[i] are noticeably smaller

[ii] have female uppersides with **no** prominent marks or spots

[iii] have differences in the underside markings. Click below for a comparison.

[b] the underside of Large Blue although the Large Blue usually has larger and bolder markings than both Alcon and Iolas.

<u>Click here</u> for a comparison of the undersides of all the above species.

#### **Upperside MALE**



Wing border:

dark and narrow. Fore-wing border usually broadens slightly towards the apex of the wing.

#### **Upperside FEMALE**

**Colour:** variable, generally appears half brown, half blue





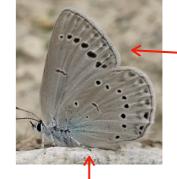


lolas on Bladder Senna

**Submarginal marks:** row of dark marks on hind-wing, which can be faint. These marks will distinguish from Alcon Blue [see opposite].

#### **Underside MALE & FEMALE**

Male and female are similar



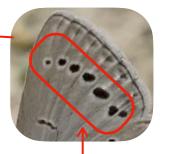
Colour:

ground colour is

usually paler than

the Alcon Blue

[see opposite]



Fore-wing outer spots: Row of spots is **gently** curved [almost straight]. This distinguishes from Alcon Blue [see opposite] and Black-eved Blue.

### Terms



lolas Blue [lolana iolas]



#### **Upperside MALE**



Wing border: dark, usually well defined, and relatively wide. Fore-wing border usually broadens towards the apex of the wing.

#### **Upperside FEMALE**



Colour: brown with blue basal scaling which can vary greatly. The blue is often extensive but occasionally may be almost absent.



#### **Underside MALE & FEMALE**

The features below help distinguish from Green-underside Blue

Fore-wing outer spots 4 and 5: spot 5 is normally further inwards from the wing edge than spot 4



Colour: usually browner than Greenunderside Blue

 $\triangleright$ **Hind-wing outer** spots: generally a complete row



A view of the underside is necessary to

separate and make a positive identification.

**Key Identification Features** 

Underside outer spots:

Black-eyed and Green-underside both

have noticeably bolder and larger outer spots on the underside fore-wing

than on the underside hind-wing.

Black-eved Blue v Green-underside Blue

The undersides of both sexes of both

species can look similar. Differences which

help separate them are illustrated below.

For a quick comparison click here

Location may also help as Black-eyed

is restricted to southwestern Europe.

Both Black-eved and Green-underside might be confused with:

[a] <u>Alcon Blue</u>; the male and female

uppersides of which are similar. However,

Alcon Blue is a noticeably large species.

[b] Amanda's Blue; the male upperside of

which is similar. An underside view is

necessary to make a positive identification.

[c] lolas Blue; which can usually be differentiated by its large size but has similar:

[i] female uppersides that can usually be

distinguished by their small dark

submarginal marks on the hind-wing.

[ii] male and female undersides.

Click here for a comparison.



These two variable species have similar uppersides.

#### **Upperside FEMALE**





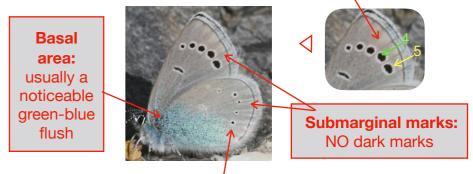
Colour: sometimes completely brown but generally has pronounced basal blue scaling [as shown opposite] though this is variable. Fresh specimens have almost a black ground colour.

#### **Underside MALE & FEMALE**

Sexes similar with female usually slightly browner.

Features below help distinguish from Black-eved Blue

Fore-wing outer spots 4 and 5: spot 5 is in line with spot 4



#### Hind-wing outer spots: frequently small, vestigial or absent



Subspecies schneideri

The most dramatic variation of Green-underside is schneideri, which flies in Fennoscandia, with females that have blue uppersides like males.



#### **Upperside MALE**





Wing border: variable,

usually dark, relatively wide

and well defined. Fore-wing

border usually broader than

hind-wing and widens towards

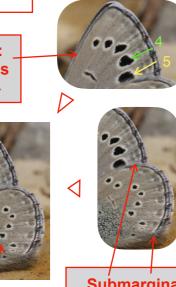
the apex of the wing



Male and female

are similar.





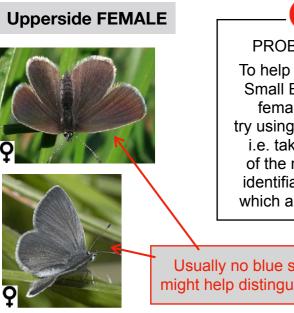
Submarginal marks: usually some darkish marks. even if very faint

#### **Upperside MALE**





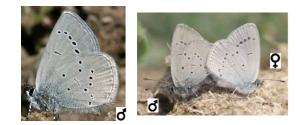
Colour: both sexes are dark brown/black and frequently look more slate grey than brown. Males may have a slight blue dusting [as shown above]



PROBABILITY To help distinguish Small Blues from female Osiris try using probability, i.e. take account of the number of identifiable males which are present.

Usually no blue scaling which might help distinguish from Osiris

### **Underside MALE & FEMALE**



The undersides of both sexes are almost indistinguishable from Osiris Blue

### Similar 'Local' Species

which might confuse is Lorquin's Blue [Cupido lorquinii] Lorquin's is only found in southern Iberia and has: [i] the same foodplant as the Small Blue, and [ii] males with bright blue uppersides. Lorquin's will be described in more detail in the second part of this guide. See Introduction.

Please refer to other sources if necessary.

#### **Key Identification Features**

Small and Osiris Blue are noticeably smaller than the other species in this quide. Male uppersides are guite different but female uppersides are similar. The undersides are almost indistinguishable. Compare using the notes below.

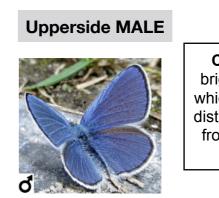
#### Small Blue v Osiris Blue

- Size: Small Blue is markedly smaller than the other species in this guide. Osiris is, on average, slightly larger than Small Blue.
- Foodplant: Osiris has a close association with its foodplant Sainfoin [Onobrychis species]. Thus a specimen found on Sainfoin will most likely be Osiris. Small Blue feeds on Kidney Vetch [Anthyllis species].
- MALE upperside: Small Blue is grey/dark brown/black, sometimes with a blue dusting. Osiris is bright blue.
- FEMALE upperside: Blue scaling will usually only be found on Osiris and NOT on Small Blue.
- MALE & FEMALE underside: Osiris and Small Blue have almost indistinguishable undersides. However. Osiris generally has [i] more basal blue on hind-wing, [ii] a slightly more silvery colour than Small Blue.

Note: Differences in the underside spot pattern are frequently cited as a means of differentiating these two species. The reliability and consistency of these features are considered uncertain and therefore not included here.

[b] Underside of Mazarine Blue.

average, somewhat larger.



Colour: bright blue. which clearly distinguishes from Small Blue

Wing

border:

dark and

narrow



Osiris on Sainfoin



**Colour:** generally a deep dark brown sometimes with basal blue scaling [as shown above]. If blue scaling is present it will: [i] usually be more extensive than found on Small Blue males, [ii] help to distinguish from the female Small Blue.

#### **Underside MALE & FEMALE**



The undersides of both sexes are almost indistinguishable from Small Blue

Usually more basal blue on hind-wing than is found on Small Blue



[i] Both Small and Osiris might be confused with:

Click here for an explanation of how to separate.

[ii] Both sexes of Small Blue and Osiris females

have similar uppersides. However, Mazarine is, on

could be confused with Mazarine Blue females which

[iii] Male Osiris upperside is similar to male Holly Blue.

Distinguish by the fore-wing fringe lines on Holly Blue.

[a] Provencal and Short tailed Blues with vestigial/absent

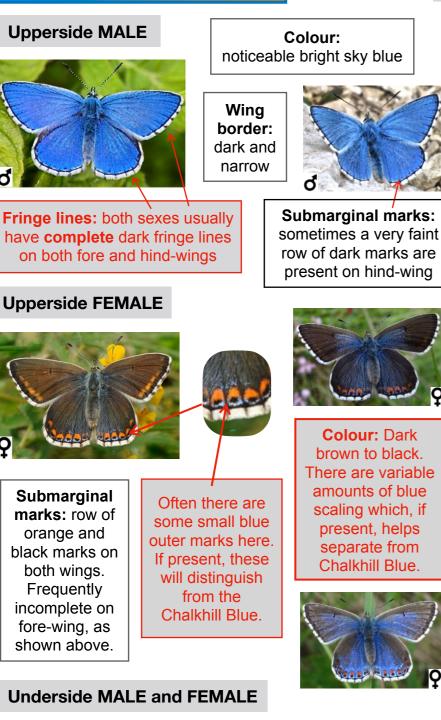
tails. <u>Click here</u> for guidance on recognising missing tails.

Terms 🔶

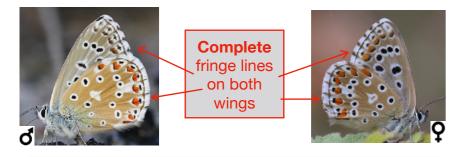
Maps

## **Osiris Blue** [Cupido osiris]





Male and female are similar but female is usually browner



The undersides of both sexes are very similar to Chalkhill Blue although Adonis usually has **bolder** spots



Terms 🔶

Maps 🔶

Fringe lines or 'chequering': Adonis and Chalkhill typically have noticeable dark fringe lines visible on the upper and underside of <u>BOTH</u> wings, usually fainter on hind-wing.

**SOME or ALL** of these lines, which vary in width/shape, are **complete**, i.e. <u>they cross the fringe or reach a</u> <u>point close to the outer edge of the</u> <u>fringe</u>. This is unlike lines found on other species which usually are a **partial** projection into the fringe from the end of the vein. See below.



Adonis Blue

Common Blue

**Partial** 

Notes: [i] <u>Baton Blue</u>, <u>Chequered Blue</u>, <u>Geranium Bronze</u>, are the other species in this guide with bold fringe lines on both wings. All are quite different and easily identified, [ii] male Adonis upperside is similar to male <u>Holly Blue</u> which has bold fringe lines but usually <u>ONLY</u> on the fore-wing.

Adonis v Chalkhill

FEMALE uppersides:

Separate by: [i] Blue scaling - usually only found on Adonis [ii] Outer submarginal marks if present, blue on Adonis and white on Chalkhill [iii] Probability - with reference to the number of males present.

#### MALE and FEMALE undersides:

Differentiation may be possible by the spots on Adonis which are generally bolder than Chalkhill. Otherwise an upperside view will be required for identification.

#### Upperside MALE



#### Fringe lines: both sexes normally have complete dark fringe lines on both wings. Usually bolder on fore-wing.

#### **Upperside FEMALE**



# usually no blue Submarginal marks:

Colour: dark brown.

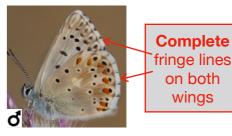
row of orange and black marks on both wings. Frequently faint on forewing, as shown here.

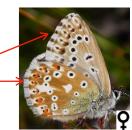


If white outer submarginal marks like these are present, this will distinguish from Adonis

#### Underside MALE and FEMALE

Sexes are similar but female is generally browner





#### Similar 'Local' Species

which might confuse are listed below

with a summary of their distribution:

- Azure Chalkhill Blue [Lysandra caelestissima] east-central Spain.
- **Provence Chalkhill Blue** *[Lysandra hispana]* coasts of northwest Italy, south France, east Spain. Inland in north Spain from north east westwards, south of Pyrenees, towards southern Cantabrians.
- Spanish Chalkhill Blue [Lysandra albicans] Iberian Peninsula.

These species will be described in more detail in the second part of this guide. See <u>Introduction</u>. Please refer to other sources if necessary.

#### Chalkhill Blue [Lysandra coridon]

The Chalkhill Blue shows great variation across its wide range with many regional races and forms. A 'typical' specimen is described below.

Wing border: dark wide border on fore-wing



Submarginal marks: dark submarginal marks on hind-wing which normally have some degree of white surround

Cell marks:

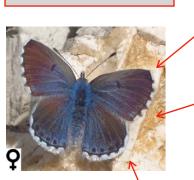
usually noticeable dark mark on forewing, faint on hindwing. Sometimes with white outlines.

#### Upperside MALE and FEMALE



#### Cell marks: usually noticeable dark marks on both wings of males. Can be faint on hind-wing.

Fringe lines: both sexes have bold dark fringe lines usually reaching close to the outer edge, especially on the fore-wing

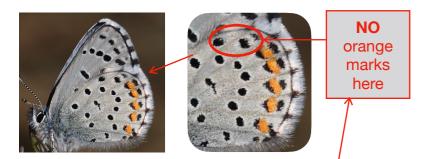


Submarginal marks: rows of black marks on both fore and hind-wings. These marks are not always visible [especially on the fore-wing] as they frequently merge with the wing border.

**Colour:** sexes are similar but females are usually darker with much less blue than males

**Cell marks:** normally difficult to see on females as they blend with the darker ground colour

#### Underside MALE and FEMALE



Hind-wing submarginal marks s1 and s2: Baton normally has NO orange marks in s1 and s2 [as shown above]. This usually distinguishes from Chequered Blue [see opposite].





These two species can be difficult to separate. An underside view is usually necessary to confirm identification. Compare using the notes below.

#### **Key Identification Features**

#### Fringe lines or 'chequering':

Uppersides of both sexes of Baton and Chequered are similar with the bold fringe lines on both wings, commonly referred to as 'chequering', being a prominent feature.

#### Baton v Chequered

Underside hind-wing marks s1 and s2:

Baton and Chequered are best differentiated by the presence/absence of orange colouring in these underside marks. Baton has an incomplete band of orange submarginal marks on the underside hindwing with NO orange marks in s1 and s2 whilst Chequered has a complete band of orange. See illustrations below.

Note: <u>Geranium Bronze</u> has similar bold fringe lines but should not cause any confusion.

#### Similar 'Local' Species

which might confuse are listed below with a summary of their distribution:

- Bavius Blue [Pseudophilotes bavius]
   northwestern Romania, southern Balkans and
   southern Greece
- Eastern Baton Blue [Pseudophilotes vicrama]
   eastern Europe including Balkans & Greece
- False Baton Blue [Pseudophilotes abencerragus] southern Spain and Portugal
- Panoptes Blue [Pseudophilotes panoptes]
   Iberian Peninsula
- Sardinian Blue [Pseudophilotes barbagiae] endemic to Sardinia.

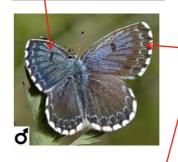
These species will be described in more detail in the second part of this guide. See <u>Introduction</u>. Please refer to other information sources if necessary.

#### Chequered Blue [Scolitantides orion]

There are two distinct populations [i] subspecies *orion* - found in coastal areas of southern Fennoscandia, [ii] subspecies *lariana* - found in central/southern Europe. They are similar in appearance. The main difference is the uppersides of *lariana* [described below] which are generally darker than *orion*.

#### Upperside MALE and FEMALE

Cell marks: prominent dark mark on fore-wing. Sometimes a faint mark on hind-wing.



Submarginal marks: rows of black marks usually bordered by pale blue/white scales on both fore and hind-wings. These bright surrounds can help distinguish from Baton Blue but they are not always visible as they can merge with the dark ground colour.

Colour:

sexes are similar with widely

varying amounts of blue scaling. Females usually have less blue,

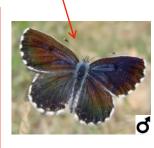
sometimes with almost none. The

brown ground colour can be very

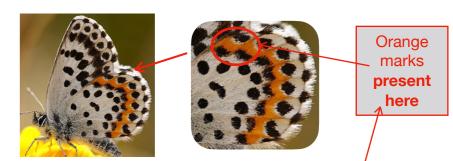
dark, almost black, even in males.



Fringe lines: both sexes have bold dark fringe lines usually reaching close to the outer edge, especially on the fore-wing

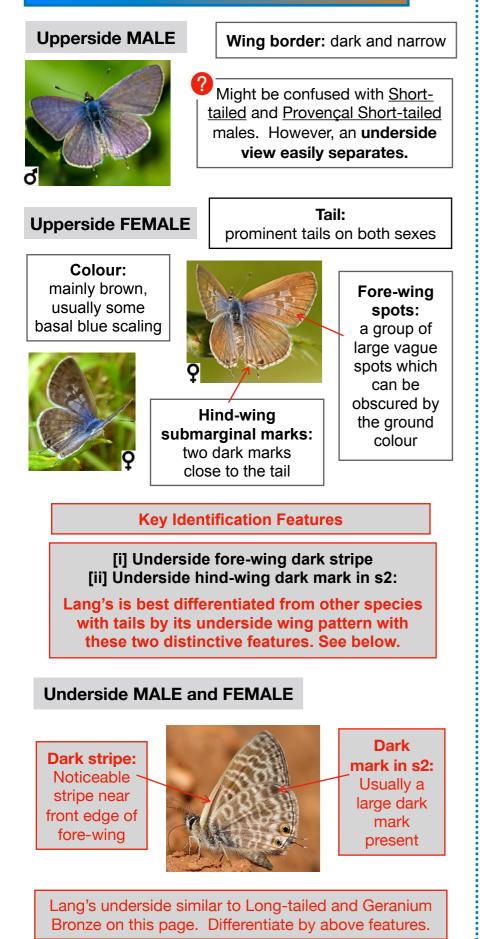


#### Underside MALE and FEMALE

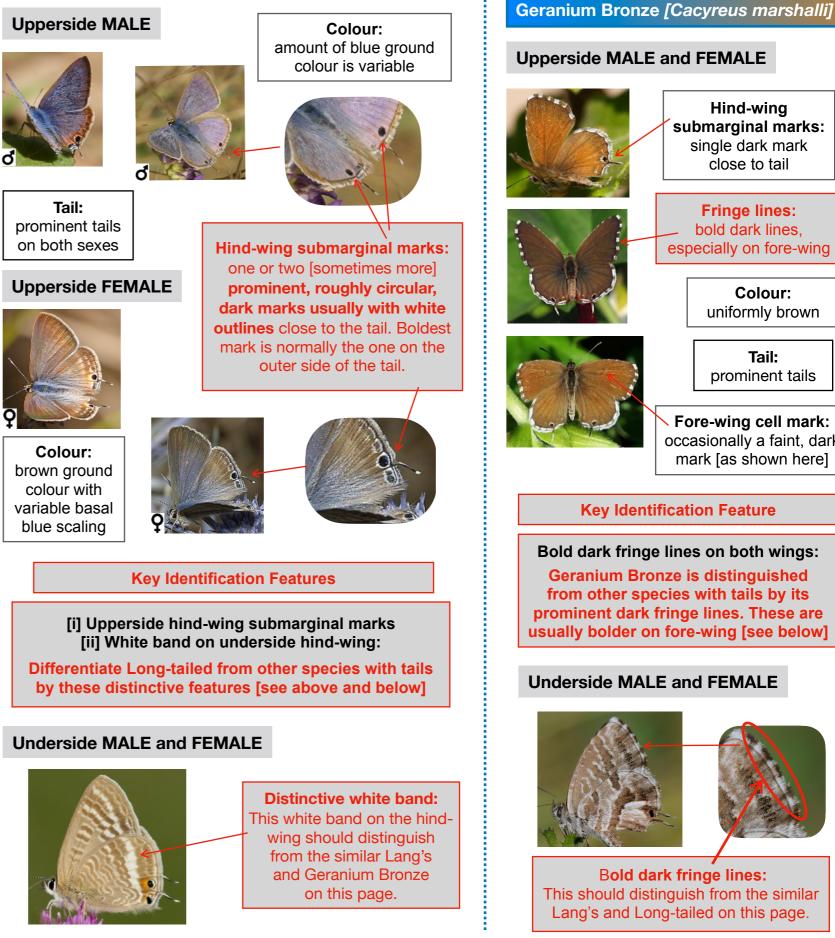


Hind-wing submarginal marks s1 and s2: Chequered usually has noticeable orange marks in s1 and s2 making a continuous band of orange [as shown above] This usually distinguishes from Baton Blue [see opposite].

#### Lang's Short-tailed Blue [Leptotes pirithous]



Long-tailed Blue [Lampides boeticus]



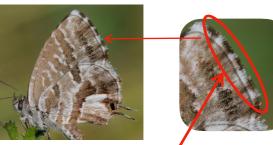
Hind-wing submarginal marks: single dark mark close to tail Fringe lines: bold dark lines. especially on fore-wing Colour: uniformly brown Tail: prominent tails Fore-wing cell mark: occasionally a faint, dark mark [as shown here] **Key Identification Feature** Bold dark fringe lines on both wings: Geranium Bronze is distinguished

Terms 🔿

Maps

from other species with tails by its prominent dark fringe lines. These are usually bolder on fore-wing [see below]

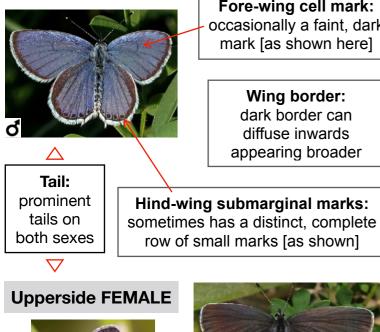
#### Underside MALE and FEMALE



**Bold dark fringe lines:** This should distinguish from the similar Lang's and Long-tailed on this page.

Short-tailed Blue [Cupido argiades]

#### **Upperside MALE**





Fore-wing cell mark:

occasionally a faint, dark

mark [as shown here]

Wing border:

dark border can

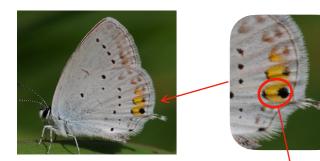
diffuse inwards

appearing broader

**Colour:** mainly black ageing to brown, usually with some degree of basal blue scaling

Submarginal marks: normally has an orange mark close to the tails

#### Underside MALE and FEMALE



Hind-wing submarginal mark s6: Normally has a visible amount of orange in mark s6 and sometimes additional orange marks in s5 and s4 [as shown above] This usually distinguishes from Provençal opposite.

These two species can be difficult to separate. An underside view is usually necessary to confirm identification.

#### **Key Identification Feature**

#### Short-tailed v Provencal

Underside hind-wing submarginal mark s6:

Short-tailed and Provencal are best differentiated by this underside mark. Short-tailed normally has a large orange mark whilst Provençal usually has a faint mark with NO significant orange. See illustrations below.

The uppersides of both species are variable and difficult to separate. Click here for a detailed comparison.

Note: Male Short-tailed and Provencal could be confused with the male upperside of Lang's Short-tailed Blue. However, Lang's is easily differentiated by its distinctive underside wing pattern.

### ABSENT TAILS -

Sometimes the tail on these two species is vestigial/absent due to wear etc. This may lead to confusion, especially with Osiris or Small Blues. However, there is generally a kink in the dark marginal line indicating where the tail would have been which should help to separate. This kink, visible on both upper and underside, is illustrated in the photos below.



Worn specimen with tail absent. Despite this the kink is still clearly visible

Tail vestigial but kink still visible





frequently has a single prominent mark close to the tail

**Upperside FEMALE** 

Tail: both sexes have a short tail, sometimes vestigial

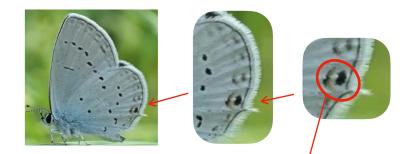


usually with no basal blue scaling

Colour: black/dark brown,

Hind-wing submarginal marks: normally has NO marks

#### Underside MALE and FEMALE



Hind-wing submarginal mark s6: Normally a faint mark with NO significant orange. This usually distinguishes from Short-tailed Blue opposite.

#### Similar 'Local' Species

which may confuse is Eastern Shorttailed Blue [Cupido decoloratus] found from east Austria to Romania

and south to northern Greece. Male is dull blue with broad wing borders and a fore-wing cell mark. *Decoloratus* will be described in detail in the second part of this guide. See Introduction. Please refer to other sources if necessary.

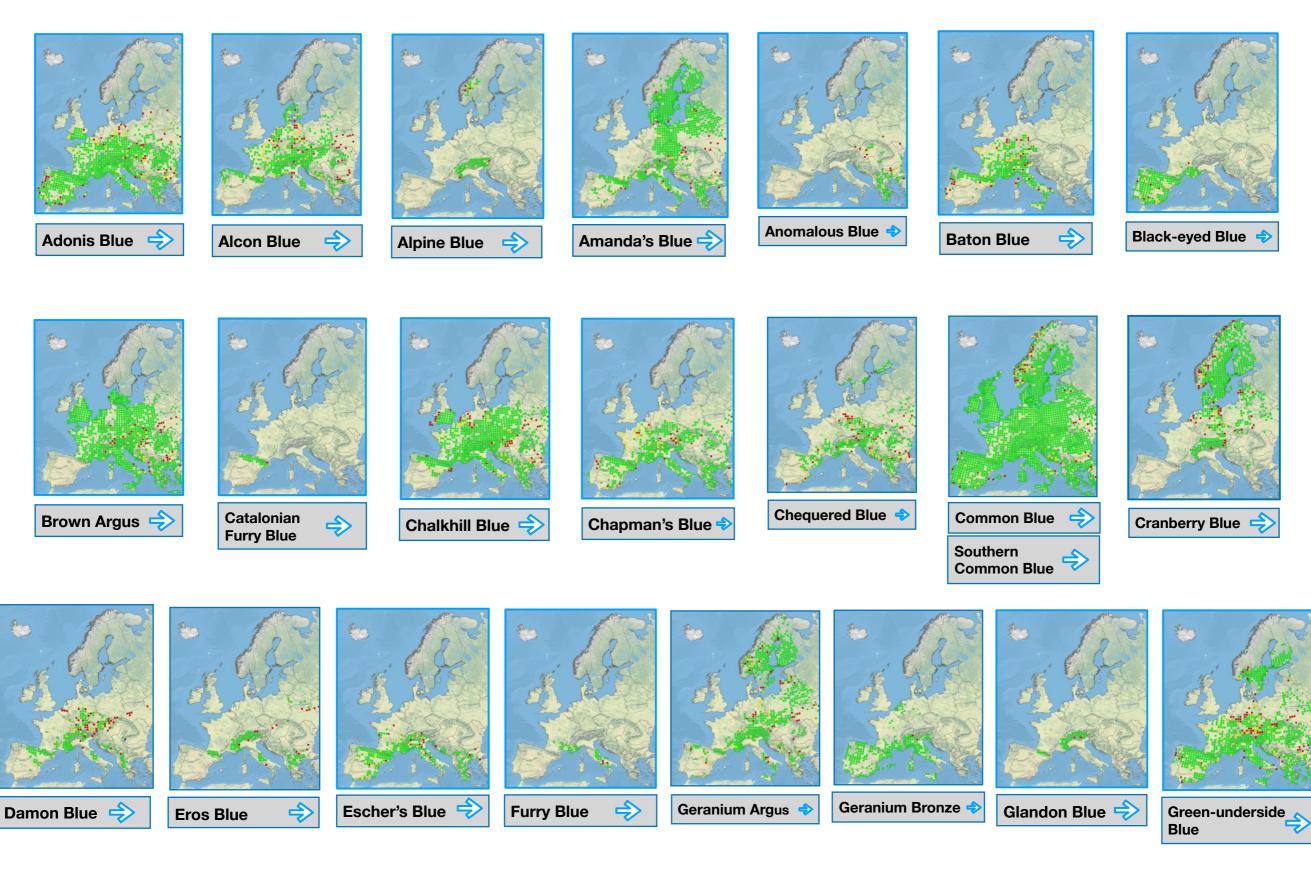


### **Distribution Maps**

Up to 1950

1951 - 1980

#### After 1980



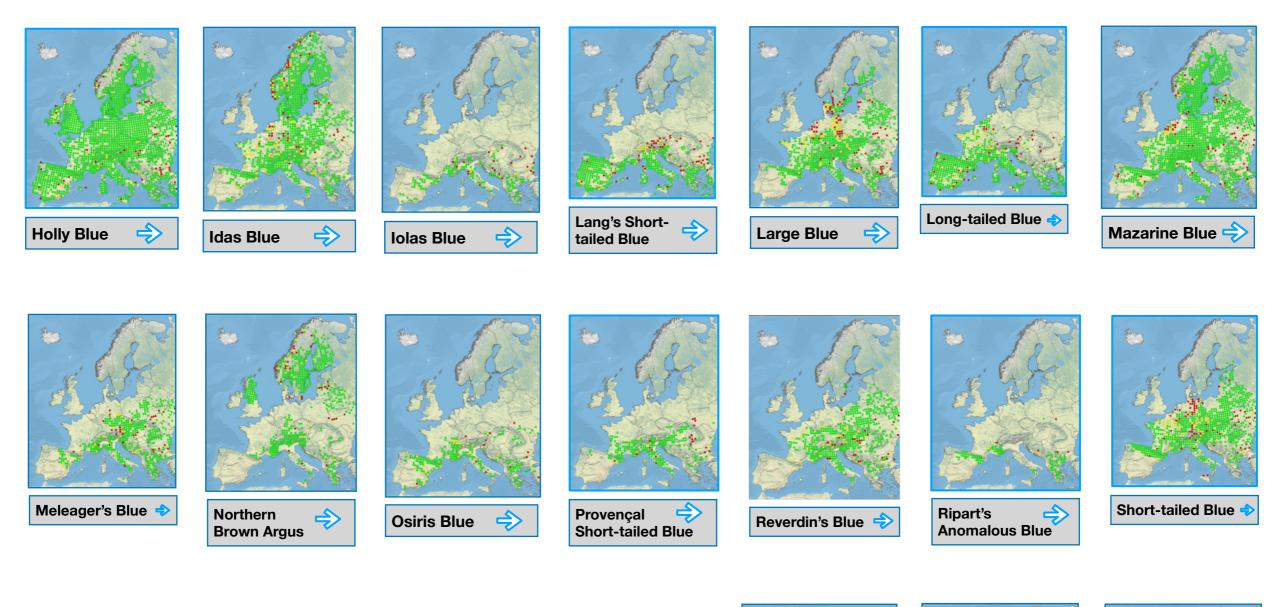
#### [Continued on next page]

### **Distribution Maps**

Up to 1950

1951 - 1980







#### Appendix

#### Geography

The geographical area covered is as shown on the Distribution Maps excluding the coast of northern Africa.

#### Taxonomy

The current EBG checklist of European butterflies has been followed which comprises species found in Europe up to the eastern boundary of the European Union. This checklist was compiled by an international committee of taxonomic experts.

Acknowledgements

The distribution maps are reproduced by kind permission of LepiDiv Projekt. For more information please visit LepiDiv

With special thanks for information and photographs to Bernard Watts of <u>www.butterflyeurope.co.uk</u>

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