BUTTERFLIES OF THE IBERIAN PENINSULA



A photographic record and field guide Paul R. G. Browning

For those who delight in butterflies

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Introduction and Acknowledgments

This is a revised edition of a work published in 2011. As well as having some information updated some pictures have been replaced by more recent ones and some additional species are pictured. With very few exceptions picture captions now include the date on which the butterfly was photographed. All images taken before 2006 are derived from negatives or slides.

Riodinidae is now treated as a family rather than a sub-family of the Lycaenidae, and scientific names follow *An Updated Checklist of the European Butterflies*, Wiemers et al., 2018. The order of species is similar to the one used in the 2011 edition and mainly follows Higgins and Riley, 1993 and Tolman and Lewington, 1997.

Pictures of some butterflies that were not taken in the Peninsula have again been included to fill gaps in the Iberian material. These are of Dusky Grizzled Skipper (*Pyrgus cacaliae*), Scarce Swallowtail (*Iphiclides podalirius*), Brown Hairstreak (*Thecla betulae*), Black Hairstreak (*Satyrium pruni*), African Babul Blue (*Azanus jesous*), American Painted Lady (*Vanessa virginiensis*) and Northern Wall Brown (*Lasiommata petropolitana*).

Again my thanks go to all those people who helped me to produce the original work that this revises, particularly Mike Lockwood who painstakingly proof read a draft of the book for me, and to David Moore who kindly agreed to proof read this update. I take full responsibility for any subsequent mistakes or errors.

My thanks to Matt Rowlings for again allowing me to use his images of Dusky Grizzled Skipper (p25), Spanish Zephyr Blue (p126) and Northern Wall Brown (p278), as well as African Babul Blue (p104) and American Painted Lady (p179).

T. Trowny

Paul R. G. Browning, March 14th 2019

Note: the size of this particular file has been substantially reduced in order to make down-loading easier. Oddly enough, on my equipment this does not appear to have noticably reduced the quality of the text or the images, but perhaps on higher resolution monitors this may not be the case. 26.10.20

Notes on the text

The text has been kept to a minimum and is intended to help find and identify the butterflies.

Habitat: this describes the kind of habitat the species is likely to be seen in. Altitude figures refer to the range from which the butterflies have mainly been reported; species may occasionally be found outside this range.

Distribution: the distribution of butterflies in the Iberian Peninsula has yet to be fully researched and mapped, and the information given here should be used only as a guide. Much of the information has been derived from the *Atlas of the Butterflies of the Iberian Peninsula and Balearic Islands* (SEA, 2004).

Larval foodplants (Lfps): information regarding the types of plants various caterpillars feed on has been updated and has now been derived mainly from the *Guia de les papallones diürnes de Catalunya* (Vila, Stefanescu and Sesma, 2018) and the *Mariposas Diurnas de La Comunitat Valenciana* (Montagud Alario and García Alamá, 2010). Additional information has been gathered from various articals posted on the web and from *The Butterflies of the Iberian Peninsula and Balearic Islands* (Fernández-Rubio, 1991) and the *Butterflies of Britain and Europe* (Tolman and Lewington, 1997). Such information has, whenever possible, been corroborated in the field by watching females laying their eggs.

The plants are listed as a general guide, mainly in order to identify potential habitat and to know what to look out for. The list of plants for each species is not necessarily exhaustive and often only the plant genus is mentioned. Books used to help identify the caterpillar foodplants are listed in the bibliography.

Identification: where two or more species closely resemble one another attention is drawn to differences in appearance that can be used to separate them. Where possible, similar species have been placed on opposite pages. For butterflies that never or rarely open their wings when settled, a very brief description of the upperside is given to help identify the butterfly in flight. In cases where the identification of such butterflies is difficult on the basis of their undersides alone, and where butterflies may need to be caught and examined in the field, a more detailed description of the upperside is given. It must be pointed out here that a permit is always needed in Spain to capture butterflies, even when the purpose is just to look at them more closely. Some butterflies are difficult to identify even if both the upperside and underside are examined. Among some of the skippers and fritillaries small variations are common, causing doubts about recognition. Very occasionally these doubts can only be resolved by an examination of their genitalia, a procedure outside the practice of most naturalists. So as not to mislead, however, the genitalia of a few butterflies were examined in the preparation of this work, in order to confirm identification.

Picture titles: brackets put around part of a picture caption indicates a degree of uncertainty. This may refer to the sex of the butterfly, which is the case when the sexes are very similar, the abdomen is not clearly seen or the butterfly's behaviour does not indicate one sex or the other. Brackets may also be used when the identity of a species or subspecies is not certain.

Flight chart: this shows the periods in which the butterflies are likely to be on the wing. This can only act as a rough guide. Butterflies flying at low levels near the Mediterranean will usually emerge earlier than members of the same species flying at similar altitudes in the north, and often much earlier than those flying at high altitudes; the flight periods then, will often appear much longer than they actually are for many particular colonies. Grey stars indicate partial second broods or periods when the likelihood of seeing the species is well below normal in an average season.

Abbreviations

ab. aberration alt. altitude C central esp. especially Е east f. form FR France fw forewing GB Great Britain ground colour gc hw hindwing inc. including lfp larval food-plant m metres mt./mts. mountain/s Ν north NE north-east NW north-west

P.O. Pyrénées Orientales

Pto. Puerto space S S south S. Sierra SE south-east

species (singular/plural) sp./spp.

subspecies ssp. SW south-west unfw underside forewing unhw underside hindwing uns underside upperside forewing upfw uphw upperside hindwing upperside ups

vein W west

The Life-cycle of Butterflies

Female butterflies lay many eggs (ova). In most species these are laid singly, on or near a plant that the emerging caterpillar (larva) will feed on. Some species lay batches of eggs, usually a large first batch and then sometimes smaller second and third batches.

Sites for egg-laying are chosen very carefully in order to maximise the caterpillar's chances of survival. Temperature, shelter, humidity, and the nutritional value of the required plant are all assessed before the female deposits her egg(s). In the case of those females that lay large batches of eggs the supply of food around the chosen plant will also be important and will be carefully checked out.



egg of the Spanish Festoon



small egg batch of Large White on Garlic Mustard



eggs of Alcon Blue on Cross Gentian



female Peacock laying a large batch of eggs



Aetherie Fritillary egg batch



fully grown larva of an Orange-tip butterfly

The caterpillar is an organism well adapted for growth; this is its prime purpose in life and it takes place in stages known as instars: the skin stretches and has to be cast off a number of times as it expands to its limit, a new flexible skin forming underneath the old one each time.

Caterpillars vary considerably in size, shape and colour. In order to defend themselves against predators some have large branched spines; some are very well camouflagued, whilst others are brightly marked to show that they are poisonous or taste bad. When the caterpillar is fully grown the last skin splits and a chrysalis (pupa) emerges.

The skin of the chrysalis dries hard, and within it the butterfly eventually develops.



Orange-tip larva preparing to pupate



Marsh Fritillary larva nearly full-grown



Orange-tip pupa



full-grown Small Copper larva

The chrysalis or pupa, like many caterpillars, is usually well camouflaged; it may, like the Red Admiral pupa, be hidden in a tent of leaves. Pupae of many Lycaenid butterflies (hairstreaks, coppers, blues and arguses) lie hidden within ant nests, having been protected as larvae by the ants in return for a sweet sticky solution secreted by the larva.

Pupae above ground usually either hang down by their tail end from a silk pad (e.g. Painted Lady below) or are firmly fixed with an additional silk girdle (e.g. Brimstone and Large White, below and opposite).

Before it emerges, the butterfly's wings show through the pupal case. After emerging it must expand and dry its wings before taking to the air.



Large White pupa in winter



Brimstone pupa



Large White pupa a day before emergence



Painted Lady pupa



female Large White expanding her wings

Predation

As well as being at the mercy of the weather, all stages in the life-cycle of a butterfly are open to attack from various predators. Butterflies are sometimes taken by birds, and dragonflies will occasionally catch them (see Brimstone below, though to my astonishment I once saw a male Large Skipper fly up from its territory and see off a patrolling hawker dragonfly).

Spiders account for a number of losses and some butterflies will invariably end up in a web or get ambushed and caught while nectaring, like the unfortunate Spanish Gatekeeper below. Hibernating butterflies are particularly vulnerable to attacks from small mammals as well as spiders.

The butterfly, however, is the least vulnerable stage in the life-cycle as far as predation goes. Eggs are eaten by birds and other small creatures, and so too are caterpillars and chrysalises.

Parasitic wasps and flies are responsible for the death of vast numbers of caterpillars. Some caterpillars are targeted by host-specific species: deaths caused by such parasites can account for up to 75% of a colony's population; a large proportion of Large White caterpillars for example, annually fall prey to the parasitic wasp *Apanteles glomeratus*.

Out of the hundreds of eggs laid by each female only a few will normally complete the life-cycle and develop into butterflies.



Brimstone caught by Emperor Dragonfly



Spanish Gatekeeper caught by crab spider

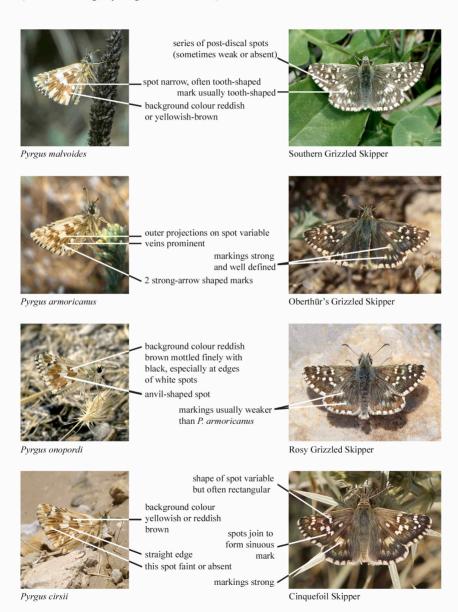
THE BUTTERFLIES

family: HESPERIIDAE



imbibing Skippers (mainly Safflower - Pyrgus carthami) Albarracín, 18.6.10

Some characteristics that help to identify members of the *Pyrgus* genus. (butterflies slightly larger than lifesize)





Pyrgus andromedae

Pyrgus serratulae

3 basal spots in a row—
hw markings ill-defined—
these two white marks form a
slanting exclamation mark



Alpine Grizzled Skipper



this spot round or oval

this spot large and usually
more or less rectangular
hw markings well
defined but quite dark
ground colour olive to yellowbrown, without obvious mottling;
veins indistinct



Olive Skipper



Pyrgus cinarae

veins clearly white spot large visible and concave ground colour yellow to pale brown or buff

these 2 spots in males lack the sinuous curve of *cirsii*. Female spots usually smaller and more variable



Sandy Grizzled Skipper



Pyrgus carthami

all spots edged with a dark line which is usually distinct space between discoidal spot and cell spot relatively small and narrowing at bottom

distinct discal markings distinct submarginal markings

pale marginal border virtually unbroken



Safflower Skipper (Lleida)

Pyrgus malvoides (Elwes and Edwards, 1897)

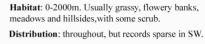
Southern Grizzled Skipper

| М | Α | R | Α | Р | R | М | Α | Υ | J | U | N | J | L | Υ | Α | U | G | S | Е | Р |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | | | |

usually two broods but univoltine at high alt.



female, Martinet, Lleida, 18.5.02



Lfp: various, including wild strawberry (Fragaria vesca), cinquefoils (Potentilla spp.), Rubus spp. inc. blackberry, salad burnet (Sanguisorba minor), agrimony (Agrimonia eupatori) and alpine avens (Geum montanum).

Identification: small, with well defined upperside markings, usually including a white tooth-shaped mark in discal area of uphw; usually a row of small white post-discal spots on upfw, but sometimes indistinct or absent, esp. in 2nd brood.



female, Moia, Barcelona, 10.6.10



male, Martinet, Lleida, 4.9.16



male, Sant Sadurni de Osomort, Barcelona, 22.3.16



male, Puigcerdà, Girona, 16.5.02



habitat near Martinet, Lleida, 4.9.16

Pyrgus armoricanus (Oberthür, 1910)

Oberthür's Grizzled Skipper

| Α | Р | R | М | Α | Υ | J | U | N | J | L | Υ | Α | U | G | S | Е | Р | 0 | С | Т |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |

two or more broods



male, Querforadat, Lleida, 20.5.05

Habitat: 0-2000m (usually below 1700m). Flowerrich meadows, hillsides, tracks and roadside verges. Distribution: mainly northern Iberia, but scattered colonies in Ciudad Real, Albacete, Cordoba, Sevilla and Granada.

Lfp: inc. cinquefoils (*Potentilla* spp. esp. creeping cinquefoil (*P. reptans*) and dropwort (*Filipendula vulgaris*).

Identification: unhw ground colour yellow-brown with slightly mottled appearance (in Olive Skipper, *P. serratulae*, an unmottled olive to olive-brown); veins lighter than background colour; unhw white discal spot often indented, but sometimes almost rectangular like *P. serratulae*). Male upfw with notable grey hairs in basal and inner discal areas.



male, Querforadat, Lleida, 20.5.05



female, Sant Sadurni de Osomort, Barcelona, 2.9.16



male, Valle de Chistau, Huesca, 12.6.10



female, Sant Sadurni de Osomort, Barcelona, 2.9.16

Pyrgus alveus (Hübner, 1803) + P. foulquieri (Oberthür, 1910)

Large Grizzled Skipper + Foulquier's Grizzled Skipper

| M | Α | | | | | | | | | | G | S | Е | Р |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | * | * | * | * | * | * | * | * | * | * | | | | |

one brood

Pyrgus alveus ssp. centralhispaniae (Verity, 1925)

Habitat: generally 800-1800m but sometimes to 2300m or more. Flower-rich meadows and hillsides. **Distribution**: Most of northern mountain range

Distribution: Most of northern mountain range and high sierras of Andalucia and central Spain.

Lfp: cinquefoils (*Potentilla* spp.), wild strawberry (*Fragaria vesca*), agrimony (*Agrimonia eupatoria*) and rockrose (*Helianthemum nummularium*).

Identification: relatively large. Like *P. carthami* but without strong, dark edging to white unhw markings; pale unhw margin broken; wide gap between cell spot and discoidal spot on upfw. Unhw basal spot near costa not round or oval as in *P. serratulae*. Often identified by a process of elimination.

Pyrgus foulquieri

Very similar to *P. alveus*. Males can be separated by their genitalia and sometimes by an extensive tuft of white hairs on the uns of the abdomen (see below). There are old unconfirmed and doubtful records of *bellieri* from Álava, Burgos and the Cantabrian Mnts. Presence more recently established in Cataluña and Huesca Province.

Habitat similar to P. alveus.

Lfp: *Helianthemum numularium* and *H. oelandicum* recorded in Barcelona Province



male foulquieri (centre), Bescaran, Lleida, 11.7.15



P. alveus male, Bescaran, Lleida, 11.7.15



P. alveus female, Tossa d'Alp, Girona, 12.7.15



P. alveus males, Huelamo, Cuenca, 2.8.13

Pyrgus onopordi (Rambur, 1839)

Rosy Grizzled Skipper

| Α | Р | R | Μ | Α | Υ | J | U | Ν | J | L | Υ | Α | U | G | S | Е | Р |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | * | | | | | |

hillsides.

from Cataluña.

Habitat: 0-1500m. Flowery meadows and scrubby

Distribution: records from most of Peninsula, but many from Spain not verified. Few recent records

Lfp: mainly Potentilla and Helianthemum spp. (esp. P reptans); also Malva neglecta (dwarf mallow). Identification: usually a little larger than Southern Grizzled Skipper (P. malvoides). Uns gc variable, from yellow-brown to reddish; some dark edging to the white markings; anvil-shaped discal spot in

at least two broods



female, Puebla de Don Fadrique, Granada, 28.4.03



s4-5 usually distinct enough to be diagnostic. Upperside similar to Oberthür's Grizzled Skipper (P. armoricanus), but hw usually less well marked.



male, Puerto del Pinar, Granada, 29.4.07



female, Puebla de Don Fadrique, Granada, 28.4.03



male, Albarracín, Teruel, 23.6.97



female, Colomarde, Teruel, 26.5.99

Pyrgus serratulae (Rambur, 1839) Olive Skipper

| | М | Α | Y * | J * | U * | N * | J * | L * | Y * | A * | U * | G * | S | Е | Р |
|--|---|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---|---|---|
|--|---|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---|---|---|

Habitat: 900-2400m. Grassy, flowery places in a variety of habitats.

Distribution: northern half of Peninsula and mts.of central and southern Iberia.

Lfp: mainly cinquefoils (Potentilla spp.).

Identification: a variable butterfly, sometimes difficult to identify with certainty. Markings on uphw often obscure; upfw spots often small, esp. in female; ground colour of unhw clear, unmottled olive to olive-brown. Unhw basal spot near costa is round or oval.

Female often with brassy suffusion on upperside.



male, Valle de Gistaín, Huesca, 13.6.10



female, La Bonaigua, Lleida, 4.7.19



male, Valle de Gistaín, Huesca, 13.6.10



male, La Bonaigua, Lleida, 4.7.19



female, La Bonaigua, Lleida, 4.7.19

Pyrgus cinarae (Rambur, 1839) ssp. clorinda (Warren, 1927)

Sandy Grizzled Skipper

| Μ | Α | Υ | J | U | Ν | J | L | Υ | Α | U | G | S | Е | Р |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | * | * | * | * | * | * | * | |

one brood



female egg-laying, Serranía de Cuenca, 24.7.17



female, Serranía de Cuenca, 29.7.17



female, Serranía de Cuenca, 28.7.17

Habitat: 1000-1600m. Dry flowery grassland with some grazing, in either Portuguese Oak forest communities on calcareous substrates (Cuenca), or Pyrenean Oak forest communities on silaceous soils (Ávila).

Distribution: Serranía de Cuenca in Sistema Íberico (recorded from hills around Valdecabras, Huelámo, Tragacete and Ciudad Encantada and more recently near Carrascosa). Records sparse since 1926. Discovered in 2010 in Sierra de Ávila in Sistema Central.

Lfp: in Serranía de Cuenca, dropwort (*Filipendula vulgaris*). In Sierra de Ávila, dropwort and sulphur cinquefoil (*Potentilla recta*).

Identification: male unhw gc yellow-brown; veins clearly visible and lined in pale yellow; uphw markings slightly buff or cream, fading to white with age. Female more variable: unhw yellow-brown to reddish orange and uphw pale markings darker than males, sometimes almost a deep shade of ochre.

Notes: may be under recorded due to an earlier lack of accurate information regarding its Ifps and habitat requirements. Recent field studies may result in more colonies being discovered, but at present it's regarded as one of the parest butterflies in the Iberian Peninsula.



male, Serranía de Cuenca, 25.7.17

Pyrgus cirsii (Rambur, 1839) Cinquefoil Skipper

| MA | Y | J | U | Ν | J | L * | | A * | | | S * | | Р |
|----|---|---|---|---|---|--------|--|--------|--|--|--------|--|---|
|----|---|---|---|---|---|--------|--|--------|--|--|--------|--|---|

one brood

Habitat: below 1800m. Flower-rich meadows, edges of tracks and flowery roadside verges.

Distribution: northern and central Spain; some records from southern sierras; common in the Garrotxa (Girona).

Lfp: mainly cinquefoils (Potentilla spp.).

Identification: dark ups with prominent markings. Upfw cell spot usually more or less rectangular; the two spots in s1b/2 are usually joined to form a sinuous mark. Male and females are alike, though the white markings on the females may be reduced and the sinuous mark may be absent. Unhw a distinct reddish-brown with a squarish central white spot.

Notes: males often congregate in large numbers to take up mineral salts from muddy pathes of ground. Once treated as a ssp. of the Carline Skipper (*P. carlinae*); a butterfly not present in the Peninsula.



male, Bellver de Cerdanya, Lleida, 7.8.02



male, Moscardón, Teruel, 11.8.06



puddling males, Huelamo, Cuenca, 26.7.17



male, Albarracín, Teruel, 3.8.13

Pyrgus sidae (Esper, 1782) ssp. *gargantoi* (Martínez and Sánchez, 1987) Yellow-banded Skipper

M A Y J U N J L Y A U G S E P

one brood



female, La Garganta, Cáceres, 24.6.09

Habitat: 700-1325m. Grassy, flowery meadows and hillsides with lfp.

Distribution: restricted. Only recorded from central western Spain: Cáceres (Hervás and La Garganta), Salamanca (Candelario) and Ávila.

Lfp: sulphur cinquefoil (Potentilla recta).

Identification: ups similar to Safflower Skipper (*P. carthami*); uns distinctive, with pale yellow discal and postdiscal bands on a white background. Intensity of yellow bands and black edging variable. Size of butterflies variable but on average perhaps the largest of the *Pyrgus* species in the Peninsula.



female, La Garganta, Cáceres, 24.6.09



habitat, La Garganta, Cáceres, 23.6.09



female, La Garganta, Cáceres, 23.6.09



male, Candelario, Salamanca, 24.6.09



male, La Garganta, Cáceres, 23.6.09

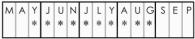


male, La Garganta, Cáceres, 23.6.09



female, La Garganta, Cáceres, 24.6.09

Pyrgus carthami (Hübner, 1819) Safflower Skipper





male, Boltana, Huesca, 14.6.10



Habitat: 0-2300m. Wide range of habitats with grasses and flowers.

Distribution: mainly northern and eastern areas of Spain, but some scattered colonies in S and W, e.g. Sierra Nevada and Zamora. No Portuguese records.

Lfp: various cinquefoils (Potentilla spp.).

Identification: upfw with well developed white markings; distance between white discoidal and discal spot smaller than in Large Grizzled Skipper (Pyrgus alveus), and narrowing at base. Uphw submarginal spots bright and distinct.

Unhw with continuous white or pale margin; white spots outlined in a shade darker than ground colour.



male, Bellver de Cerdanya, Lleida, 21.6.10



female f. nevadensis, Pto. de Ragua, Granada, 28.6.07

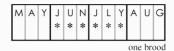


female f. nevadensis, Pto. de Ragua, Granada, 28.6.07



male f. nevadensis, Pto de Ragua, Granada, 28.6.07

Pyrgus andromedae (Wallengren, 1853) Alpine Grizzled Skipper



Habitat: 1300-2300m. Flowery alpine and sub-alpine meadows.

Distribution: local and scarce; recorded only from the Pyrenees of Huesca, Lleida and Girona.

Lfp: mountain avens (Dryas octopetala).

Identification: upfw with three small white discal spots forming a vertical row just below the cell spot, and a little in towards base of wing; pale uphw markings are usually large but often ill-defined; ups with many grey hairs on all wings.

Unhw with prominant white streak running along inner margin, followed by a white spot, giving the impression of an exclamation mark.

Notes: at high altitudes caterpillars pass through two winters before pupating.



male, La Bonaigua, Lleida, 27.6.18



male, La Bonaigua, Lleida, 30.6.18

Pyrgus cacaliae (Rambur, 1839) Dusky Grizzled Skipper

Habitat: usually 2000 - 2500m. Alpine and sub-alpine meadows, especially near small streams and lakes.

Distribution: very scarce; recorded from Pyrenees of Huesca (Benasque valley), Lleida (Val d'Aran, Bonaigua and the Aigüestortes National Park) and Girona (Núria).

Lfp: alpine avens (Geum montanum).

Identification: upfw like a large, poorly marked Olive Skipper (*P. serratulae*); ground colour grey to brown, with some small white spots on fw. Markings on uphw grey or brown, rather faint and indistinct, unlike Olive Skipper.

Uns brown with white markings, often poorly defined, esp. towards outer edge of hw; often with two white spots in the form of an exclamation mark on inner margin of hw, as in *P. andromedae* but less distinctive. Diagnostic feature is the the absence on unhw of a white or off-white mark at base of space 2.

Notes: biennial life-cycle with caterpillars passing through two winters before pupating. Presently most common in even numbered years.



one brood



Switzerland

O Matt Rowlings

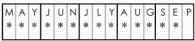


Switzerland

Matt Rowlings

Spialia sertorius (Hoffmannsegg, 1804)

Red-underwing Skipper



S. sertorius bivoltine. S. rosae bivoltine at medium altitude; single brood in August at high altitude.

Habitat: 0-1900m, but more often at low to mid altitude. Hot, dry, grassy and scrubby hillsides, dry stream beds, open woodland and edges of roads and tracks.

Distribution: widely distributed in the Peninsula. **Lfp**: salad burnet (*Sanguisorba minor*).

Identification: visually inseparable from *S. rosae* below, but otherwise distinctive and not easily confused with any other skippers flying in Peninsula.



female (sertorius), Calonge, Girona (below 200m), 3.9.16

female (sertorius), Calonge, Girona (below 200m), 3.9.16

Spialia rosae (Hernández-Roldán, Dapporto, Dinca, Vicente & Vila, 2016) Cryptic Red-underwing Skipper

A recently discovered cryptic species, found in most of the main Iberian mountain ranges apart from the E Pyrenees. Recorded flying from 469m in Navarra province to 2640m in Sierra Nevada, though usually above 850m.

Morphologically indistinguishable from *S. sertorius* in wing markings and male genitalia, but can be separated on the basis of DNA sequencing, molecular differences in wing structure, and by the exclusive use of *Rosa* spp. as its lfps.

It is thought to be endemic to the Iberian Peninsula.



female (rosae), Javalambre, Teruel (2000m), 27.7.13



male, Valle de Hecho, Huesca (600-800m), 14.8.08

Muschampia proto (Ochsenheimer, 1808)

Sage Skipper

| MAR | Α | Р | R | Μ | Α | Υ | J | U | Ν | J | L | Υ | Α | U | G | S | Е | Р |
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unclear: two broods or one prolonged brood

Habitat: 0-1800m. Flower-rich places with Ifp. Distribution: throughout most of Spain except Pyrenees, Cantabrian mountains and NW, where records are few. Reasonably common in southern Cataluña, but rare in N. Absent from northern Portugal.

Lfp: sages (*Phlomis* spp.), especially *P. lychnitis*, *P. herba-venti* and *P. purpurea*.

Identification: distinctive. Only member of the *Muschampia* genus found in the Peninsula.



male, Sierra Elvira, Granada, 13.5.09



male, Arroyo Cerezo, Rincón de Ademus, 26.7.13



male, Sierra Elvira, Granada, 13.5.09



female, Almansa, Albacete, 23.7.17



female, Ubrique, Cádiz, 25.9.14

Some characteristics that help to identify members of the *Carcharodus* genus. (butterflies slightly larger than lifesize)



small, light spots scattered on dark brown background

> central discal spot grey, pale brown or pinkish; never white or cream

translucent cell-spot narrow; sometimes absent



Mallow Skipper



Carcharodus lavatherae

hindwing pale, with slightly darker, obscure markings

this spot relatively wide

central discal spot white or pale cream; much larger than others and distinctly rectangular



Marbled Skipper



Carcharodus boeticus

central discal spot small with irregular shape

veins light and distinctive

chain of dark spots distintive

discal and postdiscal spots form clear bands which, with pale veins, give a reticulated effect



Southern Marbled Skipper



Carcharodus floccifera

Usually notably larger than other members of the genus

long finger-like markings run from postdiscal area to outer margin

central discal spot small with irregular shape



Tufted Marbled Skipper

Carcharodus alceae (Esper, 1780) + C. tripolinus (Verity, 1985)

Mallow Skipper + False Mallow Skipper

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polyvoltine

Carcharodus alceae

Habitat: 0-1800m. A wide variety of habitats especially dry stream beds and flower-rich scrubby hillsides with patches of bare soil.

Distribution: thought to be widespread throughout Peninsula, though distributional overlap with False Mallow Skipper (*C. tripolinus*) unclear, and a large proportion of records from southern Portugal and southern Andalucia that were formerly attributed to *C. alceae* may well belong to *C. tripolinus*.

Lfp: mainly common mallow (Malva sylvestris).

Carcharodus tripolinus

Habitat: 0-1800m (?) Hot, dry, flower-rich scrub and grassland; often sheltered rocky places.

Distribution: recorded from Tagus estuary through Algarve and S Andalucia as far east as Alicante.

Lfp: common mallow (Malva sylvestris).

Identification: *C. alceae* and *C. tripolinus* are inseparable without examination of genitalia. In both species, uphw without white markings, (present in other *Carcharodus* species); translucent spot in cell of upper forewing very narrow; uns distinctive.

The butterflies pictured from northern Spain are *C. alceae*; the male below, from Cádiz province is more likely to be *C. tripolinus*.



male, Benalup, Cádiz, 21.9.14



male, Martinet, Lleida, 30.7.98



male, Vilanova de Meià, Lleida, 21.3.16



female, Valle de Garcipollera, Huesca, 13.8.08

Carcharodus lavatherae (Esper, 1780)

Marbled Skipper



(August-September)

male, Bellver de Cerdanya, Lleida, 21.6.03

Habitat: 700-2400m. Grassy hollows and gullies on high mountain slopes; at lower levels, grassy hillsides and meadows, usually with some scrub.

Distribution: N and E Spain; isolated colonies in Cádiz and Salamanca.

Lfp: yellow woundwort (Stachys recta). Sideritis hirsuta and S. scordioides also recorded.

Identification: like Southern Marbled Skipper (Carcharodus baeticus): uphw central discal spot large and squarish; row of pale submarginal spots on uphw usually strong and V-shaped (weaker and reduced to form a thin pale line in C. baeticus). Unhw markings pale and indistinct (usually clear, with reticulated pattern in C. baeticus).

Notes: unlike C. baeticus, butterflies do not appear to be closely tied to patches of lfp, and isolated individuals are more frequently encountered.



male, Bellver de Cerdanya, Lleida, 18.6.03



male, Albarracín, Teruel, 23.6.97



female, Tossa d'Alp, Girona, 6.7.05



male, Albarracín, Teruel, 18.6.10

Carcharodus baeticus (Rambur, 1839)

Southern Marbled Skipper

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polyvoltine

Habitat: usually 0-1700m but to over 2150m in some sierras in Andalucia. Low areas of grassy scrub to high sheltered places on rocky mt. slopes. **Distribution:** much of Spain, but no records from

Distribution: much of Spain, but no records from most of the NW. Scarce in E Cataluña. Scattered colonies in Portugal.

Lfp: mainly white and black horehound (*Marrubium vulgare* and *Ballota nigra*).

Identification: ups ground colour variable, dark to light brown; uphw pale discal spot not as large or as square as in Marbled Skipper (*C. lavatherae*). Unhw markings distinctive; pale veins and white markings form a strong reticulated pattern.

Notes: butterflies often very local, centred on small patches of lfp, used for nectaring and roosting. High in Sierra Nevada, ssp. *fonti*; pattern on unhw pale and more uniform, resembling *C. lavatherae*.



female, Chachana, Cádiz, 24.4.07



male, Alora, Málaga, 26.4.97



male roosting, Martinet, Lleida, 22.7.02



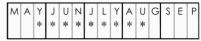
female roosting, Sierra Alfacar, Granada, 26.6.07



female, Los Filabres, Almería, 27.6.07

Carcharodus floccifera (Zeller, 1847)

Tufted Marbled Skipper



one brood June/July; partial second Aug/Sept



male, Ripoll, Girona, 23.6.94

Habitat: 0-1800m. Sheltered flowery hillsides and meadows, especially near streams.

Distribution: N and C Spain; unconfirmed in Portugal and much of S and W Spain.

Lfp: various woundworts (*Stachys* spp.).

Identification: like Marbled Skipper (*C. lavatherae*) but usually larger and darker; strong dark striations running from edge of wings towards cell, visible on both surfaces but becoming less clear as butterfly becomes worn. Female similar to male.

Notes: Tufted Marbled Skippers and Marbled Skippers usually occupy different habitats.



male, Los Alcornocales, Cádiz, 8.5.09



habitat, Cava, Lleida, 11.6.04



male, Cava, Lleida, 11.6.04



female, Val de Toran, Lleida, 4.7.15

Erynnis tages (Linnaeus, 1758)

Dingy Skipper

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two broods

Habitat: 0-1800m. Scrubby hillsides and fields with patches of bare ground and thin vegetation; flowery meadows and sunny areas in open woods.

Distribution: in Spain, widespread in the N from Asturias to Cataluña; rarer in central, southern and eastern regions; some isolated colonies in W, NW and SW. In N Portugal, recorded as far south as Guarda. Absent from S Portugal.

Lfp: mainly bird's-foot trefoil (*Lotus corniculatus*) and horse-shoe vetch (*Hippocrepis comosa*); rarely *Coronilla* and *Anthyllis* spp.

Notes: spring brood males sometimes very large.



male, Sant Vicenç de Calders, Tarragona, 24.5.02



male, Tramacastilla, Teruel, 18.6.10



female + male (right), Puigcerdà, Girona, 16.5.02



male, Cava, Lleida, 18.7.01



female + male (right), Puigcerdà, Girona, 16.5.02

Carterocephalus palaemon (Pallas, 1771)

Chequered Skipper



one brood



male, Val de Varradós, Lleida, 9.6.04

Habitat: 800-1200m. Damp grassy places in areas of open woodland, usually deciduous.

Distribution: central Pyrenees (Val d'Aran); Vizcaya (Peña de Orduña and surroundings); Cantabrian Mountains mainly in Asturias.

Lfp: various grasses reported inc. purple moor-grass (Molinia caerulea), cocksfoot (Dactylis glomerata) wood false-brome (Brachypodium sylvaticum), timothy (Phleum pratense), rough meadow grass (Poa trivialis), bush grass (Calamagrostis epigejos),

Notes: female similar to male though usually slightly larger and yellow markings often a little paler.



male, Val de Varradós, Lleida, 9.6.04



habitat, Val de Varradós, Lleida, 9.6.04



male + P. malvoides, Val de Varradós, 9.6.04



male, Val de Varradós, Lleida, 9.6.04

Heteropterus morpheus (Pallas, 1771)

Large Chequered Skipper

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one brood

Habitat: 800-1200m. Damp grassy places, usually in or near open woodland; sheltered heathland with bracken and heather; grassy clearings in coniferous and eucalyptus plantations.

Distribution: mainly west Pyrenees through País Vasco and Cantabrian Mts. to Lugo (scarce west of Cantabria); also Val d'Aran in central Pyrenees.

Lfp: grasses, inc. purple moor-grass (*Molinia caerulea*) and *Brachypodium* spp. reported.

Notes: number and size of pale spots on upfw slightly variable. Flies with a very distinctive bobbing motion, unlike any other skipper.



female, Puerto de Otxondo, Navarra, 6.7.09



habitat, Novalis, Cantabria, 30.6.09



male, Novalis, Cantabria, 30.6.09



female, Novalis, Cantabria, 30.6.09



male, Puerto de Otxondo, Navarra, 6.7.09

Thymelicus acteon (Rottemburg 1775)

Lulworth Skipper



one brood



female, El Aquián, Almería, 14.5.09

Habitat: 0-2000m. Sheltered, flowery, grassy areas.

Distribution: throughout most of the Peninsula.

Lfp: various grasses esp. tor grass (*Brachypodium pinnatum*) and slender false brome (*B. sylvaticum*), *B. phoenicoides* and cocksfoot (*Dactylis glomerata*). Also *Calamagrostis* and *Bromus* spp.

Identification: female distinctive. Male ups darker than *T. sylvestris* and *T. lineola*, usually with faint traces of female pattern on forewing; sex brand similar to *T. sylvestris*; uns more evenly coloured. By a small margin, on average the smallest of the *Thymelicus* genus found in the region.



female, Posada de Valdeón, León, 8.7.00



male and female (right), Martinet, Lleida, 22.7.04



habitat, Martinet, Lleida, 22.7.04



male, Sierra Alfacar, Granada, 25.6.07



male, Sierra Alfacar, Granada, 25.6.07



male and female (left), Loule, Algarve, 26.4.07

Thymelicus lineola (Ochsenheimer, 1808)

Essex Skipper



one brood



female, La Molina ski station, Girona, 2.8.02

Habitat: 0-1800m. Flowery places with tall grasses in a wide variety of habitats.

Distribution: most common in mts. of N, C and S Spain; present in mts. of Alicante and Cataluña, otherwise virtually absent from coastal provinces in E Spain. Scattered colonies elsewhere.

Lfp: grasses. A vast range of species has been recorded.

Identification: slightly smaller than the Small Skipper (*Thymelicus sylvestris*); male sex brand shorter and straight; tips on uns of antennae virtually black (see opposite page). Both species often found in same habitat.



female, Alp, Girona, 16.7.02



habitat above La Molina ski station, Girona, 17.7.01

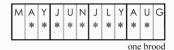


male, Martinet, Lleida, 30.6.01



male, La Molina, Girona, 17.7.02

Thymelicus sylvestris (Poda, 1761) Small Skipper



Habitat: 0-2200m. Flowery places in a wide variety of habitats supporting tall grasses.

Distribution: throughout most of the Peninsula. **Lfp**: grasses, inc. *Holcus, Brachypodium, Phleum Molinia, Dactylis*, and *Calamagrostis* spp.

Identification: slightly larger than *T. lineola*, with

T. lineola



which it often flies; male sexbrand longer and slightly bent; uns of antennae with orangebrown tips rather than deep reddish-black.

Images of antennae from pictures of live butterflies.

T. sylvestris



habitat near Martinet, Lleida, 23.7.98



male, Martinet, Lleida, 21.6.10



male, Bellver de Cerdanya, Lleida, 29.6.01

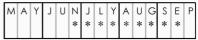


female, Martinet, Lleida, 22.6.03



male, Collada de Toses, Girona, 19.7.04

Hesperia comma (Linnaeus, 1758) Silver-spotted Skipper



one brood



male, Querforadat, Lleida, 3.7.01

Habitat: 0-2700m. Warm, sheltered spots with grasses and flowers, usually on thin soils.

Distribution: widespread in N and C areas of Peninsula; restricted to mountain ranges in S and E Andalucia; apparently absent from most of the SW corner.

Lfp: grasses; mainly sheep's fescue (*Festuca ovina*) and *F. liviensis*, but *Poa, Nardus* and *Lolium* spp. also recorded.

Notes: high altitude butterflies generally have darker suffusion on uppersides.



female, Víllec, Lleida, 5.8.02



habitat, Rasos de Comabella, Girona, 16.7.03

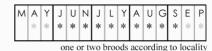


male, Valle de Garcipollera, Huesca, 13.8.08



female, Rasos de Comabella, Girona, 16.7.03

Ochlodes sylvanus (Esper, 1777) Large Skipper



Habitat: 0-2500m. Flowery, grassy places with trees or bushes, especially bramble.

Distribution: N and central areas of Peninsula; restricted to mountains in south where colonies are more scarce and isolated.

Lfp: a wide variety of grasses including cock's foot (*Dactylis glomerata*) common cat's tail (*Phleum pratense*), and slender false brome (*Brachypodium sylvaticum*).

Notes: males territorial, seeing off rival males from chosen spots.



female, Martinet, Lleida, 18.7.02



male, Valle de Chistau, Huesca, 12.6.10



male, Martinet, Lleida, 4.9.16



female, Puerto de Tarna, Asturias, 27.6.09



male, La Molina, Girona, 17.7.02

Gegenes nostodamus (Fabricius 1793)

Mediterranean Skipper

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two or three broods; uncommon in first



male, Playa de Granada, 25.9.03



male, Salobreña, Granada, 28.9.03



female, Maro, Malaga, 4.9.00

Habitat: 0-250m; sparse grassy waste ground, dry stream beds or gullies.

Distribution: scattered colonies near Mediterranean and south Atlantic coast; also reaching inland to sites in Lleida, Huesca, Navarra, La Rioja, Cuenca and Castilla-La Mancha.

Lfp: grasses reported include *Bothriochloa* ischaemum, Zea mays and *Phragmites australis*.

Identification: like Pigmy Skipper (*G. pumilio*) but with a brush of long dense hairs on hw costa, visible close up when butterfly opens wings like female below; hairs short and sparse on *pumilio*. (According to certain eminent Spanish authorities there are no confirmed records of *G. pumilio* from the Peninsula).

Ups paler than Zeller's Skipper (*Borbo borbonica*); uns pale grey-brown compared to the rich yellow-brown of *B. borbonica* when fresh; male ups without spots; female ups spots not translucent.

Notes: females very elusive; bask in rays of early morning sun. Males hold and patrol territories along hot, dry, stony tracks.

Most abundant in September and October.



female, Maro, Malaga, 4.9.00

Borbo borbonica zelleri (Lederer 1855)

Zeller's Skipper

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generally three broods, May to September/October

Habitat: mainly 0-50m but recorded at 400m. Hot areas with grasses and plenty of flowers.

Distribution: scattered records from Mediterranean coastal regions, esp. near Algeciras, La Linea and Gibraltar as well as the Ebro Delta and two other sites in Cataluña. Widespread on irrigated land between Benalup, Barbate and La Janda (Cádiz).

Lfp: grasses, notably Polypogon viridis (Poaceae).

Identification: ups darker than the Mediterranean Skipper (Gegenes nostrodamus), with a number of off-white, translucent or hyaline spots on fw. When fresh, uns a rich yellow-brown compared to the paler, greyish brown of nostrodamus, with very distinctive small spots on hw. When butterflies get worn however, the colour of the wing turns a dull brown, and the unhw spots become difficult to see, making them look more like the Pigmy Skipper (G. pumilio), though when their wings are open the upfw hyaline spots stand out even more. Males and females very similar to one another.

Notes: males territorial at first, waiting to intercept unmated females, but after a couple of hours they go off in search of them. Both sexes avidly nectar, esp. in latter part of day.

Butterflies rare in first brood; most common in last.



female, Benalup, Cádiz, 23.9.14



(female), Benalup, Cádiz, 20.9.14



male, Ubrique, Cádiz, 25.9.14



male, Benalup, Cádiz, 22.9.14

family: PAPILIONIDAE



male Swallowtails probing mineral rich ground, Albarracín, Teruel, 25.7.04

Papilio machaon (Linnaeus, 1758)

Swallowtail

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usually two or three broods according to locality

Habitat: 0-2500m or more. Varied, inc. meadows, woodland edges, margins of cultivated land, gardens, dry hillsides and mountain slopes.

Distribution: throughout Peninsula.

Lfp: various umbellifers and rues reported (*Apiaceae* and *Rutaceae* spp.), especially fennel (*Foeniculum vulgare*).

Identification: male and female similar.

Notes: both sexes spend a great deal of time nectaring, particulary on knapweeds and thistles. Males sometimes congregate on the ground, in damp places where there are high concentrations of available mineral salts.

Butterflies with a more orange background colour (f. *aurantiaca*), regularly appear in hot coastal areas of Granada, and sometimes elsewhere.



female, Sitges, Barcelona, 7.4.95



female, Martinet, Lleida, 11.6.04

Iphiclides podalirius (Linnaeus, 1758)

Scarce Swallowtail

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two broods



male - 1st brood, Athens, Greece, 22.4.98

Habitat: below 2000m. A wide variety of places inc. dry, scrubby hillsides, woodland margins, orchards; rural lanes and tracks edged with hedgerows.

Distribution: only recorded in Val d'Aran, Leida

Lfp: mainly blackthorn (*Prunus. spinosa*) and hawthorn (*Crataegus monogyna*); also cultivated fruit trees of the *Prunus* genus.

Identification: male and female similar but females usually larger. Like *I. feisthamelii* but ups more tinged with a pale, creamy yellow. Lacking bold yellow edging to unfw costa.

The case for separation of taxon *feisthamelii* from *I. podalirius* appears to be based on differences in external morphology and nuclear genetic markers.

Notes: local hybridization occurs along the contact zone of the two taxa in S France.



male - 2nd brood, Bessan, France, 11.7.97

Iphiclides feisthamelii (Duponchel, 1832)

Southern Scarce Swallowtail

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two or three broods according to locality and season

Habitat: 0-2000m. A wide variety of places including dry, scrubby hillsides, woodland margins and orchards; rural lanes and tracks edged with hedgerows.

Distribution: most of Peninsula; absent from Val d'Aran.

Lfp: mainly blackthorn (*P. spinosa*) and hawthorn (*Crataegus monogyna*); also cultivated fruit trees of the *Prunus* genus.

Identification: male and female similar, but females usually larger. Ups gc closer to white than *I. podalirius*, with distinct yellow edging to upfw costa.

Notes: frequently seen 'puddling'. Both sexes spend a lot of time nectaring, esp. on tall thistles and lucern.

The case for separation of taxon *feisthamelii* from *I. podalirius* appears to be based on differences in external morphology and nuclear genetic markers. Local hybridization occurs along the contact zone of the two taxa in S France.



male - 1st brood, Estepona, Málaga, 28.4.97



male - 2nd brood, Vall d'Ingla, Lleida, 2.8.06

Zerynthia rumina (Linnaeus, 1758)

Spanish Festoon

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generally one brood



male, Sant Llorenç de Morunys, Lleida, 4.4.04



male, Sierra Alfacar, Granada, 13.5.09



male ab. tristis, Vélez de Benaudalla, Granada, 30.3.00

Habitat: 0-1800m. Hot, dry grassy or scrubby hillsides with plenty of flowers including lfp, often with rocky outcrops and patches of bare soil.

Distribution: widespread throughout most of Peninsula, but absent from provinces of Vizcaya and Guipúzcoa as well as from the north coast and the Pyrenees of Huesca and Navarra. Scarce or absent from Asturias and Lugo; some inland colonies in Cantabria.

Lfp: birthworts, including *Aristolochia baetica*, *A. longa*, *A. pistolochia*, *A. clematitis*, *A. rotunda* and *A. paucinervis*.

Identification: degree of red spotting on ups variable; in female f. *canteneri* ground colour a rich ochreous yellow (rare in male).

Notes: partial second brood reported from province of Málaga in the autumn (Aug-Oct).



pair (female top), Prullans, Lleida, 17.5.02



male, Prullans, La Cerdanya, LLeida, 17.5.02



male, El Marquesado, Cádiz, 22.4.07



(female), Quentar, Granada, 10.3.01

Parnassius apollo (Linnaeus, 1758) Apollo



one brood



female ssp. pyrenaica, Martinet, Lleida, 7.7.05

Habitat: 1000-2300m. Sheltered flower-rich meadows, valleys and hillsides close to high rocky slopes with thin soils supporting lfp.

Distribution: Catalan Pyrenees through to Cantabrian-Asturian Mts.; Sistema Ibérico, Sistema Central and sierras of S and SE Andalucia (Nevada, Gador, Los Filabres and María). Absent from Portugal.

Lfp: mainly white stonecrop (Sedum album); also stonecrop (S. acre) in Valenciana and S. tenuifolium in Sierra Nevada.

Notes: butterflies seen mainly in the higher valleys, but often come down to areas where there is still an abundance of nectar in midsummer. Knapweeds and thistles, especially marsh thistle (Cirsium palustre) frequently visited.

A protected species. Butterflies differ in appearance from one mt. range to another, and there are many named ssp., three of which are pictured here.



female ssp. pyrenaica, Vall d'Ingla, Lleida, 9.7.06



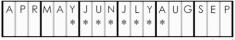
male ssp hispanicus, Orihuela de Tremedal, Teruel, 25.7.04



male ssp nevadensis, Puerto de la Ragua, Sierra Nevada, Almería, 28.6.07

Parnassius mnemosyne (Linnaeus, 1758)

Clouded Apollo



one brood



female with sphragis, Val d'Aran, Lleida, 29.6.18



female, Val d'Aran, Lleida, 29.6.18



male, Puigmal, Pyrénées Orientales, France, 21.6.10

Habitat: mainly above 1100m. Sheltered grassy slopes of higher valleys, often edged with gorse or broom and grazed by cattle.

Distribution: restricted to the Pyrenees: Pyrénées Orientales (France), Girona (NW), Lleida, Huesca and E Navarra.

Lfp: purple corydalis (Corydalis solida).

Notes: as with Apollos, during copulation males secrete a substance onto the lower surface of the last abdominal segments of the female which hardens to form a structure called a sphragis. This prevents the female from pairing again.

A protected species.



male, Puigmal, P.O., France, 26.5.05

family: PIERIDAE



Aporia crataegi (Linnaeus, 1758)

Black-veined White

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one brood



male, Reinosa, Cantabria, 17.6.94

Habitat: 0-2000m. Flowery hillsides and meadows with hawthorn or blackthorn scrub; woodland clearings and margins of woods; cultivated areas.

Distribution: NW: rare (no records from Galicia). W: rare (S Cáceres, Toledo, Badajoz, Sevilla and the Algarve). S: mainly restricted to mountains. Relatively abundant in N and E; also central mts.

Lfp: blackthorn (*Prunus spinosa*) and hawthorn (*Crataegus monogyna*) as well as many cultivated species of *Prunus*.

Notes: wings of female, especially forewings, are thinly scaled, quickly becoming transparent.



female, Alp, Girona, 16.7.02



male, Martinet, Lleida, 31.5.99



pair (female top), Alp, Girona, 1.7.01

Pieris brassicae (Linnaeus, 1758) Large White

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polyvoltine

Habitat: 0-2600m. May be seen flying almost anywhere; frequent visitor to flower-rich meadows, especially those with knapweeds (*Centaurea* spp.) and thistles (*Cirsium* and *Carduus* spp.), and to cultivated land.

Distribution: throughout the Peninsula.

Lfp: mainly wild crucifers, cultivated brassicas and garden nasturtium (*Tropaeolum majus*).

Notes: the female below was laying a batch of thirteen eggs on a small Garlic Mustard plant (*Alliaria petiolata*), growing in cool, dappled light, at the side of a narrow, tree-lined track.



male, Serra do Espinhaço do Cao, Algarve, 25.4.07



egg batch, Martinet, Lleida, 22.7.02



male, Valle de Chistau, Huesca, 12.6.10



female egg-laying, Martinet, Lleida, 22.7.02



female, Font Romeu, Pyrénées Orientales, 16.6.03

Pieris rapae (Linneaus, 1758)

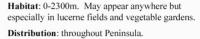
Small White

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polyvoltine



male, Faro, Algarve, 26.4.07



Lfp: mainly crucifers and related plants, esp. cultivated brassicas.

Identification: similar to Mountain Small White (*Pieris ergane*) but larger and with black spot on unfw; grey/black apical patch on upfw less square. Like Southern Small White (*P. mannii*) but grey patch on upfw extends along outer margin only as far as v7 or v6 (v4 or v3 in *P. mannii*); upfw spots rounded and grey dusting of scales on unhw denser below fold through cell.

Notes: male and female uns alike. All markings on first brood paler.



female, Los Monegros, Huesca, 3.4.04



P. rapae vein 7 usually forked



P. mannii vein 7 not forked



female, Castell de Ferro, Granada, 27.3.00



male, Castell de Ferro, Granada, 27.3.00

Pieris mannii (Mayer, 1851)

Southern Small White

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polyvoltine

Habitat: 0-2000m. Hot, dry habitats usually with scattered bushes.

Distribution: some scattered colonies in C and E Pyrenees and SE and S Spain, from Alicante and Albacete to Granada and Málaga; local in parts of Cataluña; also some colonies in Teruel, Cuenca, Zaragoza, Soria, Madrid, NW Spain and S Portugal.

Lfp: wild crucifers inc. *Iberis* spp. In Cataluña, *Alyssum maritimum* and *Coronopus squamatus*.

Identification: like Small White (*P. rapae*) but upfw black spot rarely round; often with projections towards outer margin. Dark apical patch almost always extends along outer margin at least to vein at top of spot; vein 7 on fw not forked; grey dusting of scales on unhw fairly even above and below cell.



female - summer, Roses, Girona, 15.6.04



male - spring, Maro, Málaga, 11.5.09



male - summer, Vall d'Ingla, Lleida, 9.7.06



male - summer, Vall d'Ingla, Lleida, 9.7.06



male ssp. roberti, Sierra Arana, Granada, 29.6.07

Pieris ergane (Geyer, 1828) Mountain Small White

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two or possibly three overlapping broods according to locality



male 1st brood, Martinet, Lleida, 21.6.10

Habitat: 800-1200m. Hot rocky hillsides with scrub. Distribution: rare; Pyrenees and Pre-Pyrenees of NW Girona, N Huesca, Lleida & NE Navarre; also León, Palencia, Cuenca, Rincón de Ademus, Teruel, & Guadalajara. Colonies mainly small and isolated.

Lfp: burnt candytuft (Aethionema saxatile).

Identification: like Small White (*Pieris rapae*) but smaller; unfw without black spot, though upfw spot may show through. Grey tip of upfw squarish. Female more heavily marked than male; upfw with additional mark in s1b as in Small White (*P. rapae*).

Notes: all markings heavier in second brood.



male 2nd brood, Bellver de Cerdanya, 7.8.02



habitat near Bellver de Cerdanya, Lleida, 17.7.03



female, Martinet, Lleida, 7.7.15



male, Martinet, Lleida, 7.7.15

Pieris napi (Linneaus, 1758)

Green-veined White

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polyvoltine

Habitat: 0-1900m. Damp places, esp. in and around woods; damp flowery meadows; bushy places near streams; dry river beds and cultivated ground.

Distribution: throughout N half of Peninsula; rarer in South; perhaps absent from Córdoba and Ciudad Real.

Lfp: mainly crucifers, including garlic mustard (*Alliaria petiolata*), lady's smock (*Cardamine pratensis*) and water-cress (*Nasturtium officinale*).

Notes: spot on male upfw maybe absent in spring brood. In south, grey dusting along veins often considerably reduced (f. *meridionalis*).



male, 2nd brood, Bellver de Cerdanya, 18.6.03



female - 1st brood, Pto. de Toses, Girona, 12.6.04



pair, 2nd brood, Alp, Girona, 16.7.02



female - 2nd brood, Martinet, Lleida, 1.7.01



pair, 1st brood, Porte Puymorens, P.O., 19.5.05

Pontia daplidice (Linnaeus, 1758)

Bath White

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polyvoltine



male - spring brood, Sierra Elvira, Granada, 27.3.00

Habitat: 0-2000m. Variety of habitats e.g. dry stony hillsides; disturbed ground; margins of cultivated areas.

Distribution: throughout the region. In cold and northern habitats, a migrant from the warmer south.

Lfp: various crucifers, inc. *Reseda* spp. esp. white mignonette (*Reseda alba*) and wild mignonette (*R. lutea*), as well as *Sisymbrium*, *Moricandia* and many other genera.

Notes: underside markings greenish in spring brood; usually more yellow in later broods.



male, Albarracín, Teruel, 19.6.10



female egg-laying, Chelva, Valencia, 25.7.13



female, Sierra Elvira, Granada, 27.3.00



male - summer brood, Albarracín, Teruel, 1.8.13

Pontia callidice (Hübner, 1806) Peak White

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one brood

Habitat: above 2000m, on high mountain peaks, ridges and stoney slopes.

Distribution: restricted to Pyrenees in provinces of Huesca, Lleida, Girona and Barcelona (Sierra del Cadí).

Lfp: include chamoix cress (*Hutchinsia alpina*), and Pyrenean mignonette (*Reseda glauca*). In Catalan Pyrenees the crucifer *Murbeckiella pinnatifida*, is also used.

Identification: in flight, similar to Bath White (*P. daplidice*), which occasionally flies at high altitude; easily separated at rest.

Notes: males fly rapidly around high peaks in search of visiting females, barely stopping to feed.



male, Tossa d'Alp, Girona, 27.5.05



male, Rasos de Comabella, Girona, 16.7.03



female, above Refugi d'Ulldeter, Girona, 2.7.05



male, Rasos de Comabella, Girona, 16.7.03



female, above Refugi d'Ulldeter, Girona, 2.7.05

Euchloe simplonia (Freyer, 1829)

Mountain Dappled White

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one prolonged brood



habitat, Puigmal, Pyrénées Orientales, 8.6.96



male, Puigmal, Pyrénées Orientales, 8.6.96



male, Puigmal, Pyrénées Orientales, 8.6.96

Habitat: usually 1500-2000m. High meadows and rocky slopes, often in tree sheltered areas.

Distribution: Cantabrian Mountains and Pyrenees (Huesca, Lleida, Girona and Pyrénées Orientales); possibly Sistema Central (Ávila and Madrid).

Lfp: buckler mustard (*Biscutella laevigata*) and spoon-leaved candytuft (*Iberis spathulata*).

Identification: very similar to the Western Dappled White (*Euchloe crameri*); separation based on adult and larval markings. Wing characters are variable but upfw black discoidal spot usually narrow and outwardly curving, fusing with dark shade along costa (upfw spot in *E. crameri* broader and without strong projection along costal vein). Unfw discoidal spot likewise narrow and outwardly curved; apical markings faint.

Genitalia inseparable. In areas where both species overlap, reliable separation may be a problem.

Notes: female often larger than male; discoidal spot larger; uphw with yellowish tint.

The male pictured shows unfw markings typical of the species, but the upfw discoidal mark is only thinly scaled along the costa in a manner not so very different from the male of *E. crameri* opposite, showing that this feature is, in itself, insufficient to separate the two species.

It has been suggested that the two species are really races of a single species, a view held by Rubio (1991) and raised again as a possibility by Chinery (1998).

Euchloe crameri (Butler, 1869)

Western Dappled White

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two prolonged and overlapping broods

Habitat: 0-2000m. Hot, dry, open places with lots of flowers, esp. disturbed ground in cultivated areas. Distribution: recorded throughout the Peninsula except in the provinces of La Coruna and Orense. Lfp: crucifers inc. *Biscutella*, *Rhaphmus*, *Iberis*, *Sisymbrium* and *Morricandia* spp.

Identification: difficult to separate from Mountain Dappled White (*Euchloe simplonia*) in areas where they overlap; upfw black discal spot usually large and not extending along costa; unfw spot wide and not curved as in *E. simplonia* (see opposite).

Notes: upfw of 1st brood female often with creamyyellow tint. Second brood larger; uns markings more yellow and less well defined than first brood.



female 1st brood, Hoya de Baza, Granada, 13.3.01



male 1st brood, Sierra de Espuña, Murcia, 30.4.03



male 1st brood, Sierra de Espuña, Murcia, 30.4.03



male 2nd brood, Sierra Arana, Granada, 25.6.07



female, la Quadra d'Agulladoiç, Barcelona, 20.3.16

Euchloe tages (Hübner, 1804) Portuguese Dappled White



one brood



male, Vega de Granada, 12.3.01

Habitat: 200-1800m. Hot, dry, rocky hillsides, usually on limestone with patchy scrub and clumps of tall coarse grass.

Distribution: mainly S Andalucia, Badajoz and Madrid; scattered colonies as far north as Lleida, Huesca, Zaragoza, Álava, Burgos, Orense and Lugo.

Lfp: various species of Iberis.

Identification: similar to Dappled White (*Euchloe crameri*); smaller; white underside spotting usually less pronounced; upperside discoidal spot fairly isometric and tapering away from costa; hindwing costa smoothly curved, not angled as in *E. crameri*).



male, Sierra Elvira, Granada, 27.3.00



female, Sierra Elvira, Granada, 27.3.00

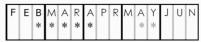


male, Hoya de Baza, Granada, 13.3.01



female, Sierra Elvira, Granada, 27.3.00

Euchloe bazae (Fabiano, 1993) Spanish Greenish Black-tip



partial second brood recorded in Granada

Habitat: 200-1000m. Semi-arid hills and gullies with sparse steppe-like vegetation, often near disturbed edges of cultivated ground.

Distribution: two separate populations, one in the Hoya de Baza, Granada (ssp. *bazae*), and one in the southern part of Los Monegros, around the joint borders of Huesca, Lleida and Zaragoza (ssp. *iberae*). **Lfp:** *Eruca vesicaria* in Granada populations and

Notes: unlike ssp. *bazae*, ssp. *iberae* has pink hairs in its collar, and a pink line running along fw costa, characteristics that it shares with its African and Canary Island sibling species, *E. charlonia*. Males spend much of their time hill-topping.

Boleum asperum in Los Monegros populations.



male, Sierra de Caspe, Zaragoza, 18.3.16



Hoya de Baza, Granada, 13.3.01



male, Sierra de Caspe, Zaragoza, 17.3.16



female, Hoya de Baza, Granada, 13.3.01



female, Hoya de Baza, Granada, 13.3.01

Euchloe belemia (Esper, 1800) Green-striped White



two overlapping broods



male 1st brood, near Málaga airport, Málaga, 2.4.00



female 1st brood, Sierra Morena, Sevilla, 22.4.93



male, Competa, Málaga, 24.4.97

Habitat: 0-1350m. Hot, dry, flowery places; edges of cultivated fields; olive-groves and orchards where weeds are allowed to grow.

Distribution: mainly in the southern part of the Peninsula from Portugal to Alicante; also found in Extremadura (Badajoz and Cáceres). Absent from NW and most of northern and eastern Spain.

Lfp: various spp. of *Biscutella* (esp. *B. laevigata*), *Diplotaxis*, *Moricandia*, *Iberis* and *Sisymbrium*.

Identification: male and female similar; uns very distinctive but variable according to brood. Ups like Dappled White (*Euchloe crameri*); easily mistaken in flight, though female lacks the cream coloured uphw typical of 1st brood females of *E. crameri*. When basking, a characteristic grey stripe can be seen running down through the black discoidal spot on the upfw of both sexes.

Notes: often shares habitat with *Euchloe tages* and *E. crameri*. Flight very fast. Males often fly around hilltops. Butterflies recently seen flying in good numbers in the province of Sevilla from the middle of November until the following spring.



male, Castell de Ferro, Granada, 29.3.00



male 1st brood, El Marquesado, Cádiz, 22.4.07



female 2nd brood, Pruna, Sevilla, 5.5.09



female, El Portal, Cádiz, 1.5.07

Colotis evagore (Klug, 1829)

Desert Orange-tip

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polyvoltine



male, Castell de Ferro, Granada, 30.6.07

Habitat: usually 0-400m in hot, dry, stony places, with sparse long grasses and presence of lfp.

Distribution: small, local, resident colonies found in coastal areas of Cádiz, Málaga, Granada, Almería and Murcia.

Lfp: caper (Capparis spinosa).

Notes: in hot dry summers butterflies disperse inland and have, for example, been seen above 1000m in the Sierra Alfacar. They are known to sometimes breed in the Vega de Granada, nearly 60kms from the sea, but are unable survive the winter there. Stable coastal colonies are threatened by agriculture and by tourist development.



female, Castell de Ferro, Granada, 2.9.00



habitat near Castell de Ferro, Granada, 30.6.07



male, Castell de Ferro, Granada, 29.3.00



pair (male - right), Castell de Ferro, Granada, 7.9.00

Anthocharis cardamines (Linnaeus, 1758)

Orange-tip

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one brood

Habitat: usually 0-1800m but female photographed at 2400m on La Bonaigua, Lleida. Grassy or scrubby hillsides and meadows, often with an abundance of lfp; sheltered valleys near rivers and streams with trees or bushes; open woodland.

Distribution: in suitable habitats throughout the N half of the Peninsula; restricted to mts. in S.

Lfp: a wide range of crucifers. In Cataluña, garlic mustard (*Alliaria petiolata*) & *Arabidopsis thaliana* prefered.

Identification: female uns like male, but white replacing orange. Male distinctive; female can easily be mistaken for Green-veined White (*Pieris napi*) in flight.



male, Sant Sadurni de Osomort, Barcelona, 22.3.16



habitat, Segre valley, Lleida and Girona, 19.6.03



male, Bellver de Cerdanya, Lleida, 5.4.04



female, Puigcerdà, Girona, 16.5.02



male, Bellver de Cerdanya, Lleida, 5.4.04

Anthocharis euphenoides (Staudinger, 1869)

Provence Orange-tip

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one brood; emergence varies according to locality



male, Puebla de Don Fadrique, Granada, 29.4.07

Habitat: 0-1800m. Flowery meadows; damp or dry grassy or stony hillsides, usually with scrub; woodland margins and clearings, roadsides and edges of cultivated ground.

Distribution: most of Peninsula; apparently absent from La Coruna, Pontevedra, Guipúzcoa, Huelva as well as most of S and W Portugal except around Tagus estuary and Setúbal Peninsula.

Lfp: mainly *Biscutella* spp. but also *Sisymbrium*, *Sinapis* and *Capsella* spp.

Identification: in flight, female easily mistaken for Sooty Orange-tip (*Zegris eupheme*); usually smaller, with more rounded wing tips and a slightly different flight pattern.



female, Puebla de Don Fadrique, Granada, 29.4.07



male, Martinet, Lleida, 18.5.02



female, Puebla de Don Fadrique, Granada, 29.4.07



male, Martinet, Lleida, 18.5.02

Zegris eupheme (Esper, 1805) ssp. meridionalis (Lederer, 1852)

Sooty Orange-tip



one brood

Habitat: 0-1000m. Dry stony hillsides; margins of cultivated land, old terraces, orchards and olivegroves where weeds are left to grow.

Distribution: mainly S, C and E Spain though infrequent in Cataluña. Absent from W Andalucia and northern Spain from Galicia through to east Pyrenees.

Lfp: various crucifers inc. Hirschfeldia, Biscutella, Sisymbrium, Rapistrum, Brassica and Rhaphanus spp.

Identification: in flight similar to a large female Moroccan Orange-tip (*Anthocharis euphenoides*); fw more pointed; flight swift and powerful; upfw distinctive.



male, Los Monegros, Huesca, 3.4.04



male, Sierra de Ricote, Murcia, 3.5.03



male, Sierra de Ricote, Murcia, 3.5.03

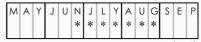


female, Los Monegros, Huesca, 3.4.04



male, Los Monegros, Huesca, 3.4.04

Colias phicomone (Esper, 1780) Mountain Clouded Yellow



one brood



male, Port de Bonaigua, Lleida, 2.7.06

Habitat: 1500-2800m (usually above 1700m). Rocky, flowery slopes or alpine grassland with lfps, sometimes sheltered by coniferous forest.

Distribution: Cantabrian-Asturian mountain range and high Pyrenees (extreme east of Navarra to west Girona).

Lfp: mainly bird's-foot trefoil (*Lotus corniculatus*); also horseshoe vetch (*Hippocrepis comosa*), white clover (*Trifolium repens*) and possibly *Vicia* spp.



female, above Arres, Val d'Aran, Lleida, 1.7.06



Tossa d'Alp, Girona, 6.7.05



female, Tossa d'Alp, Girona, 6.7.05



male, Puigmal, Pyrénées Orientales, 21.7.98

Identification: male unmistakeable; ups pale yellow, heavily suffused with grey scales, darkest at margin and submargin; well developed series of pale yellow submarginal spots on all wings. In flight, females to some extent similar to *helice* form of Clouded Yellow (*Colias croceus*) but without extensive dark hw borders; also a little like female Berger's Clouded Yellow (*C. alfacariensis*), but smaller and with extensive grey suffusion on hw (*C. alfacariensis* rare at high altitude).



female, Puigmal, Pyrénées Orientales, 21.7.98



male + female, Puigmal, Pyrénées Orientales, 21.7.98

Colias crocea (Geoffroy, 1785)

Clouded Yellow

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polyvoltine



female f. helice, Ubrique, Cádiz, 25.9.14

Habitat: 0-2000m. Open flowery places. **Distribution**: throughout the Peninsula.

Lfp: variety of leguminous plants including red clover (*Trifolium pratense*), lucerne (*Medicago sativa*) and bird's-foot trefoil (*Lotus corniculatus*).

Identification: male ups like female but fw without enclosed pale spots, and dark submarginal border on hw narrower and more clearly defined basally. Pale form of female (f. helice) like female Berger's Clouded Yellow (Colias alfacariensis) but with dark borders more extensive on all wings; uphw with dusting of black scales, making the butterfly appear darker than C. alfacariensis in flight.



female Martinet, Lleida, 30.7.98



male, Bellver de Cerdanya, Lleida, 17.7.03



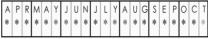
female, La Garganta, Cáceres, 24.6.09



male, Víllec, Lleida, 10.7.06

Colias alfacariensis (Ribbe, 1905)

Berger's Clouded Yellow



polyvoltine

Habitat: 400-2100m. Mainly dry, scrubby, flowery hillsides with calcareous soils, esp. on limestone.

Distribution: recorded from most of northern half of Spain except Galicia. Absent from Córdoba, Huelva and most of Portugal and Extremadura; scarce in Jaén, Toledo and Ciudad Real; no recent records from Cádiz or Sevilla.

Lfp: horseshoe vetch (*Hippocrepis comosa*) and crown vetch (*Coronilla varia*).

Identification: examination of genitalia needed to reliably separate from Pale Clouded Yellow (*Colias hyale*), but presence of *hyale* in Peninsula doubtful. Female like Clouded Yellow f. *helice*, but appears paler in flight since uphws are less heavily dusted with grey scales. This difference is also notable when the butterfly is seen at rest and backlit by sunlight, as in the female top right (compare with *f. helice* butterfly opposite). Also in this position the dark edging to the upfw can be seen to get narrower towards the inner margin compared to *C. crocea*. With wings closed and not backlit, separation from *f. helice* is very difficult.



male courting female, Moia, Barcelona, 30.6.19



female, La Molina, Girona, 17.7.02



male, Sangüesa, Navarra, 19.8.09



male, Fredes, Castellón, 24.7.13

Gonepteryx rhamni (Linnaeus, 1758)

Brimstone

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one brood in June-Aug, sometimes overlapping hibernated butterflies.



female, above La Molina, Girona, 20.6.03

Habitat: 0-2400m. Woodland rides, clearings and edges; scrubby hillsides.

Distribution: scattered records throughout the Peninsula; most abundant in northern mountains and Sistema Ibérico. In south, mainly in isolated mountain ranges.

Lfp: buckthorns (Rhamnus spp.).

Identification: male with distinctive lemon yellow ups. Female ups pale creamy-white; uns difficult to separate from female Cleopatra (*G. cleopatra*), but without strong yellow streak running through cell of unfw.

Notes: often seen nectaring at high altitude in late summer.



female, Martinet, Lleida, 9.7.06



male, Víllec, Lleida, 23.7.98



male, Alp, Girona, 12.7.15

Gonepteryx cleopatra (Linnaeus, 1767)

Cleopatra

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one or two broods, depending on locality and season

Habitat: 0-1600m (occasionally up to 2000m). Sunny rides and clearings in open woodland; edges of woods and hot scrubby hillsides.

Distribution: recorded from all provinces; records sparse from NW, and central southern Portugal.

Lfp: buckthorns (Rhamnus spp.).

Identification: male ups like male Brimstone (*G. rhamni*) but with extensive orange patch extending from basal area of fiv to submarginal zone. Separation of female from female Brimstone can be difficult, esp. in flight: ups of *G. cleopatra* tinged creamy yellow, esp. on hw and apex of fiv: unfw with yellow streak running through cell (usually absent or very faint in Brimstone).

Notes: single brooded in N and probably most of central Spain; usually bivoltine in warm areas of Andalucia and possibly the Algarve. In Cataluña, a partial second brood in some years.



male, Desierto de Las Palmes, Castellón, 4.8.13



female, Sierra Alfacar, Granada, 6.7.07



male, Desierto de Las Palmes, Castellón, 4.8.13



female, Desierto de Las Palmes, Castellón, 4.8.13

Leptidea sinapis (Linnaeus, 1758) / Leptidea reali (Reissinger, 1989)

Wood White / Real's Wood White

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bivoltine or polyvoltine according to locality



female 2nd brood, Sangüesa, Navarra, 19.8.08



female 1st brood, above Gava, Barcelona, 20.3.16



male 1st brood, Santa Margarita, Barcelona, 20.3.16

Habitat: 0-1860m. A wide variety of habitats, from hot scrubby hillsides to woodland rides and damp, tree sheltered meadows.

Distribution: *L. sinapis/reali* recorded throughout Peninsula; most common in northern mountains. Since discovery of *L. reali*, records for *L. sinapis* can no longer be considered reliable; distribution of both species will not be known until studies of male genitalia have been made on sample specimens throughout their range.

Lfp: mainly meadow vetchling (*Lathyrus pratensis*), but a variety of leguminous plants, including tufted vetch (Vicia cracca) and common bird's-foot trefoil (*Lotus corniculatus*).

Identification: male upfw white with large, grey, squarish patch at apex, darkest in summer brood, visible in flight and through wings when back lit. Uphw with two transverse bands of very pale scales, not discernable in flight. Female similar but dark apical patch reduced, very pale, and sometimes almost non-existent in summer brood. Wood White and Real's Wood White inseparable without examination of male genitalia. True identity of butterflies pictured here not known. Presence of *L. reali* confirmed and widespread in Cataluña.



second brood male in flight, Bescaran, Lleida, 11.7.15



male 2nd or 3rd brood, Ripoll, Girona, 30.8.16



2nd brood male with wings blown open, Bescaran, Lleida, 1.7.18



puddling 2nd brood males, Bescaran, Lleida, 1.7.18

family: LYCAENIDAE



male Silver-studded Blues 'puddling', Cava, Lleida, 23.6.03

Thecla betulae (Linnaeus 1758) Brown Hairstreak

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one brood

Habitat: 0-1600m. Usually a patchwork of scrub, meadows and deciduous or mixed woodland.

Distribution: northern band from Galicia across to Girona; also Sierra de Urbión, Sierra de la Demanda and N Cáceres.

Recently some scattered records from Portugal. Lfp: blackthorn (Prunus spinosa).

Notes: butterflies spend a lot of time on trees, feeding on the sweet excretions of aphids ('aphid honey-dew') but when this is not available they will descend to nectar on flowers, notably field eryngo (Eryngium campestre) and bramble (Rubus spp.). Females frequently seen nectaring between periods of egg-laying.



male, Martinet, Lleida 3.8.02



female, Bellver de Cerdanya, Lleida, 7.8.02

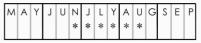


male, Dorset, GB, 11.8.15



female, Devon, GB, 3.8.10

Favonius quercus (Linnaeus, 1758) Purple Hairstreak



one brood



female, Martinet, Lleida, 15.7.03

Habitat: 400-2000m. open woodland or scrub with oak.

Distribution: throughout most of Peninsula; absent from much of the *mesetas* of Castilla-La Mancha and Castilla y León. In south, mainly restricted to mt. areas.

Lfp: oaks, including holm oak (*Quercus ilex*), holly oak (*Q. coccifera*) and common oak (*Q. robur*).

Identification: uns and male, distinctive. Female ups similar to Spanish Purple Hairstreak (*Laeosopis roboris*) but hw with short tails and no submarginal spots.



male, Albarracín, Teruel, 28.7.04



habitat near Albarracín, Teruel, 25.7.04



female, Albarracín, Teruel, 28.7.04



male. Albarracín, Teruel, 28.7.04

Laeosopis roboris (Esper, 1793) Spanish Purple Hairstreak

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one brood

Habitat: 300-1900m. Woodland edges, tracks, tree-lined roads; sheltered places with ash.

Distribution: most of the Peninsula, though absent from much of the *mesetas* of Castilla-La Mancha and Castilla y León; also absent from the coastal strip between Algeciras and Tortosa.

Lfp: ash (Fraxinus excelsior and F. angustifolius).

Identification: female ups like Purple Hairstreak (*Neozephyrus quercus*) but with 4 or 5 purplish spots near outer margin of hw and no tails.

Notes: both sexes spend a lot of time nectaring, morning and afternoon, esp. on bramble (*Rubus fruticosus*), danewort (*Sambucus ebulus*) and field eryngo (*Eryngium campestre*).



male, Son, Lleida, 6.7.15



female, Martinet, Lleida, 20.7.02



male, Ojedo, Cantabria, 2.7.97



female, Alp, Girona, 16.7.02



male, Redo, Cantabria, 28.6.09

Satyrium ilicis (Esper, 1779) Ilex Hairstreak





male, Casasuertes, León, 2.7.09

Habitat: usually 900-1800m. Areas with abundant oak.

Distribution: northern mt. ranges plus Sistema Central and Sistema Ibérico. Old records from some southern provinces require confirmation.

Lfp: oaks, inc. English oak (*Quercus robur*), holly oak (*Q. coccifera*) and holm oak (*Q. ilex*).

Identification: similar to Sloe Hairstreak (Satyrium acaciae) but larger and with less uniform white underside markings, especially on lower part of hw. Separated from False Ilex Hairstreak (S. esculi) by strong black edging to unhw orange submarginal spots and relatively well developed unfw markings. Uppersides of Iberian females dark brown, with a few pale orange submarginal spots near tail and an extensive pale orange band on fw, running through much of the submarginal and discal areas, clearly visible in flight (f. cerri).

Male ups dark brown, sometimes with faint orange fw patch.



female, Estana, Lleida, 4.7.01



female, Riaño, León, 10.7.00



female, Casasuertes, León, 2.7.09

Satyrium esculi (Hübner, 1804) False Ilex Hairstreak

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one brood

Habitat: 0-1250m. Dry scrubby areas with evergreen oaks.

Distribution: abundant in suitable habitats throughout much of the Peninsula; the most common hairstreak in Cataluña.

Lfp: holly oak ($Quercus\ coccifera$) and holm oak ($Q.\ ilex$).

Identification: like Ilex Hairstreak (*Satyrium ilicis*) but generally paler; internal black edging to orange/ red lunules on unhw thin or absent (well marked in *S. ilicis*); broken white line on unfw faint or absent (more likely to be present on female than male). Male ups dark brown. In much of Cataluña, female ups like male; elsewhere often with orange patch on upfw, clearly visible in flight (f. *illiciodes*). Male and female uns similar.



female, Cava, Lleida, 18.7.01



female, Bescaran, Lleida, 11.7.06



male, Sierra de San Juan de la Peña, Huesca, 13.6.96



female, Martinet, Lleida, 9.7.06

Satyrium acaciae (Fabricius 1787) Sloe Hairstreak



one brood



male, Puerto de Azaceta, Álava, 5.7.09

Habitat: 0-1600m. Scrubby hillsides, valleys and open woodland with blackthorn.

Distribution: northern mts. (Asturias to Girona, and south to Soria and La Rioja); Sierra de Albarracín, Serranía de Cuenca and Sierra de Guadarrama. Absent from Portugal and Galicia.

Lfp: blackthorn (Prunus spinosa).

Identification: like Ilex Hairstreak (*Satyrium ilicis*), but smaller; unhw with blue-grey spot bordering orange lunule below tail; unhw stripe less wavy esp. near base, and broken into small rectangular blocks; tails a little shorter.

Female abdomen with black anal hairtuft.

Male and female ups appear dark brown in flight.



female, Son, Lleida, 6.7.15



female, Puerto de Azaceta, Álava, 5.7.09



female, Martinet-Estana, Lleida, 6.7.06

Satyrium spini (Denis & Schiffermüller 1775)

Blue-spot Hairstreak

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one brood

Habitat: 0-2000m. Mainly hot, dry scrubby areas with buckthorn.

Distribution: widespread throughout much of the Peninsula; often fairly common.

Lfp: Rhamnus spp, inc. buckthorn (R. catharticus), mediterranean buckthorn (R. alaternus), alpine buckthorn (R. alpinus) and R. lycioides.
Frangula, Prunus and Crataegus spp. also recorded.

Identification: male and female uns similar, with distinctive blue patch below orange or red lunules in anal angle of unhw. Male ups dark brown in flight. Female ups like male but with either a faint pale orange discal patch on fw (f. *lynceus*), e.g. examples from the Algarve, or an extensive orange patch covering most of fw (f. *leonensis*), e.g. butterflies found near Riaño, León. Populations appear to be mainly, or entirely, of one form or the other.



male, Toloriu, Lleida, 23.6.03



female, Sierra Alfacar, Granada, 29.6.07

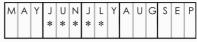


male, Ripoll, Girona, 23.6.94



female, Alp, Girona, 10.7.03

Satyrium pruni (Linnaeus, 1758) Black Hairstreak



one brood



male, Bernwood Forest, Oxfordshire, GB, 30.6.13

Habitat: 200-750m. Sheltered woodland edges or sunny clearings in deciduous woods, where thickets of mature blackthorn are found.

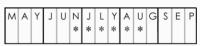
Distribution: rare and extremely local; recorded from a small number of sites in the provinces of Álava, Burgos, Zaragoza and Navarra, and a single butterfly photographed recently in the Val d'Aran.

Lfp: blackthorn (Prunus spinosa).

Identification: ups dark greyish-brown with orange -red submarginal lunules in s1b - s4; female often has traces of lunules on upfw.

Unhw without distinctive 'W' shape characterising White-letter Hairstreak (*Satyrium w-album*). Orange-red submarginal band on unhw wide and complete, edged internally with a row of small black and white spots; traces of red band on fw of female.

Satyrium w-album (Knoch, 1782) White-letter Hairstreak



one brood



female, Víllec, Lleida, 24.7.01

Habitat: 0-1700m. In or around open woodland containing larval foodplant.

Distribution: local isolated colonies found in most northern provinces of Spain, esp. Pyrenees and pre-Pyrenees of Huesca and Cataluña, as well as a few hilly areas further south in Barcelona and Girona.

Lfp: mainly english elm (*Ulmus minor*) and dutch elm (U. glabra).

Identification: ups dark brown; unhw with a characteristic 'W' mark near anal angle; red submarginal spots converge to form a narrow band.

Notes: butterflies spend much of their time in the trees, but frequently descend to feed from flowers, notably those of bramble (*Rubus*), and danewort or dwarf elder (*Sambucus ebulus*), esp. in the late afternoon

Tomares ballus (Fabricius, 1787) Provence Hairstreak

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one brood

Habitat: 0-1400m (usually below 1000m). Dry grassland with scrub and plenty of flowers, in hot sheltered spots.

Distribution: absent from Lugo, Asturias, León, Cantabria, Palencia, Burgos, Soria, País Vasco, La Rioja, and Navarra; recorded from all provinces south of these. Scattered through much of Portugal.

Lfp: Dorycnium, Anthyllis, Trifolium, Medicago spp.

Identification: male ups dark brown. Female upfw orange with wide, dark brown border, running from wing-tip through marginal and submarginal areas; uphw dark brown with wide orange band running through submarginal and postdiscal areas; in flight like a Small Copper (*Lycaena phlaeas*).



male, Gavà, Barcelona, 3.4.95



habitat, Puerto del Pinar, Granada, 29.4.07



female, Vega de Granada, 12.3.01



pair (male left), Hoya de Baza, Granada, 11.3.01



female, Puerto del Pinar, Granada, 29.4.07

Callophrys rubi (Linnaeus 1758) Green Hairstreak



one brood



male, Bellver de Cerdanya, Lleida, 5.4.04

Habitat: 0-2000m. Alpine grassland to dry scrubby hillsides, wet meadows and woodland clearings. **Distribution**: throughout most of the Peninsula.

Lfp: a wide range of plants, including brooms (*Cytisus*, *Genista* and *Chamaecytisus* spp.), gorse (*Ulex europaeus*) and bilberries (*Vaccinium* sp.).

Identification: both sexes alike; ups dark brown. Similar to Chapman's Green Hairstreak (*Callophrys avis*), but white stripe on unhw, when present, made up of a line of distinct dots or dashes (in *C. avis*, unbroken except by veins). Eyes bordered white (reddish brown in *C. avis*).

Notes: uns white markings may extend to fw or may be reduced to a single hw spot or be entirely absent.



female, Barranco de Valcuerna, Huesca, 13.3.16



male, Gavà, Barcelona, 6.4.04



female, Gavà, Barcelona, 6.4.04



male, La Molina, Girona, 19.5.02

Callophrys avis (Chapman 1909) Chapman's Green Hairstreak



one brood

Habitat: 0-1700m. Usually dry scrubby places with strawberry trees, but sometimes roadsides and hedgerows with *Coriaria myrtifolia* (notably the case in the Province of Granada for example).

Distribution: in Portugal, concentrations around Lisbon and in west Algarve; scattered colonies in northern half of the country.

In Spain, mainly Cataluña, but also colonies in the provinces of Cádiz, Granada and Cáceres-Badajos. Isolated records from Huelva, Málaga, Alicante, Jaén, Valencia, Tarragona, Huesca and Álava.

Lfp: *Arbutus unedo* (strawberry tree) and *Coriaria myrtifolia*.

Identification: similar to Green Hairstreak (*C. rubi*); uns stripe present on both fw and hw, and unbroken except at veins; rim around eyes, mainly red (white in *C. rubi*).

Male ups dark brown, female slightly lighter; both sexes a little lighter than *C. rubi*.

Often found in same habitat as *C. rubi*, but forming small distinct colonies centred around lfp.



Callophrys rubi
-rim around the eye is white



Callophrys avis

—rim around eye reddish brown



male, Dudar, Granada, 15.3.01



female, la Quadra d'Agulloic, Barcelona, 20.3.16



male, Dudar, Granada, 15.3.01



female on C. myrtifolia, Dudar, Granada, 15.3.01

Lycaena helle (Denis and Schiffermüller, 1775)

Violet Copper



one brood



male, Porte Puymorens, P.O., 21.5.05

Habitat: 800-1750m. Wet sheltered meadows with bistort.

Distribution: in the Pyrénées Orientales (France), a colony or network of small colonies exists near Porte Puymorens and a second colony flies in the Val d'Eina; Other sightings have been reported from a high valley near Aneto in Huesca Province, and from the Cantabrian mountains in the vicinity of Reinosa; the last Spanish records, however, are from 1985.

Lfp: common bistort (Polygonum bistorta).

Notes: the colony near Puymorens is vulnerable and is threatened by overgrazing, a result, perhaps, of the growing interest in pony-trekking in the area.



female, Vall d'Eina, Pyrénées Orientales, 23.7.04



female, Porte Puymorens, P.O., 7.6.96



male, Porte Puymorens, P.O., 21.5.05



female, Porte Puymorens, P.O., 30.5.99

Lycaena phlaeas (Linnaeus, 1761)

Small Copper

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polyvoltine

Habitat: 0-2500m. Flower-rich meadows; dry scrubby hillsides and valleys; woodland rides and clearings; urban wasteground.

Distribution: widespread throughout Peninsula.

Lfp: common sorrel and sheep's sorrel (*Rumex acetosa* and *R. acetosella*).

Notes: upfw of summer broods often with dusting of dark scales. A form with prominant blue spots on uphw (f. caeruleopunctata) not uncommon. In late summers, butterflies likely to be seen well into October or later.



male, Sierra de Baza, Granada, 21.7.17



male, Sierra Alfacar, Granada, 6.7.07



male, Martinet, Lleida, 3.8.02



pair (female above), Estepona, Málaga, 29.4.97



female, Puebla de Don Fadrique, Granada, 29.4.07

Lycaena tityrus (Poda 1761) Sooty Copper

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two broods



male, Puigmal, Pyrénées Orientales, FR., 8.7.15

Habitat: 0-1900m (possibly higher in Pyrenees). Flower rich meadows and hillsides with scrub, often near woodland.

Distribution: from north Portugal and Galicia across northern mts. to Girona, and south to Soria.

Lfp: *Rumex* spp., esp. common sorrel (*R. acetosa*) and sheep's sorrel (*R. acetosella*).

Identification: female uns like Iberian Copper, (*L. bleusei*), with large area of orange on unfw. Areas of potential geographical overlap between these two species occur in the northern Sistema Iberico and in Portugal just north of the Serra da Estrela where *L. bleusei* occurs.



male, Puigmal, Pyrénées Orientales, FR., 21.6.10



female, Novalis, Cantabria, 16.8.08



male, Cangas de Onis, Asturias, 16.6.94



female, La Molina, Girona, 17.7.02

Lycaena bleusei (Obürthur 1884)

Iberian Copper

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two broods

Habitat: ~ 900-1100m. Flower rich meadows and hillsides with scrub, often near woodland.

Distribution: mainly Sistema Central and Sistema Ibérico - Ávila, Badajoz, Cáceres, south Salamanca, Ciudad Real, Guadalajara, Madrid, Zaragoza (Sierra del Moncayo) and Teruel (Montes Universales). Also in Portugal, in Serra da Estrela and in isolated colonies in south.

Lfp: *Rumex* spp., especially common sorrel (*R. acetosa*).

Note: often regarded as a subspecies of *L. tityrus*, but recent genetic studies appear to confirm specific status.



female, Tramacastilla, Teruel, 18.6.10



habitat, Tramacastilla, Teruel, 18.6.10



female, Tramacastilla, Teruel, 18.6.10



female, Tramacastilla, Teruel, 18.6.10



male, Tramacastilla, Teruel, 18.6.10

Lycaena virgaureae (Linneaus 1758)

Scarce Copper



one brood



female, La Molina, Girona, 17.7.02

Habitat: 200-1860m Flower rich-meadows, often in valleys; flowery clearings in open woodland, including coniferous forest.

Distribution: Pyrenees and pre-Pyrenees, Asturian-Cantabrian Mts., Sistema Central and the Moncayo Massif in the Sistema Ibérico. In Portugal, only along northern border.

Lfp: common sorrel (*R. acetosa*) and sheep's sorrel (*R. acetosella*).

Notes: in central Spain northwards to the southern slopes of the Cantabrian Mts. - ssp *miegii*, with black spots on upfw and sometimes uphw.



male, Puigmal, La Cerdanya, P.O., 20.7.01



male, Puigmal, La Cerdanya, P.O., 13.7.01



female ssp miegii, Riaño, León, 11.7.00



male + female, Puigmal, La Cerdanya, P.O., 19.7.01



male ssp miegii, Casasuertes, León, 2.7.09



male ssp miegii, Casasuertes, León, 2.7.09

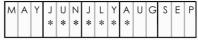


male ssp miegii, Riaño, León, 10.7.00

Lycaena alciphron (Rottemburg, 1775)

ssp. gordius (Sulkzer, 1776)

Purple-shot Copper



one brood



male, Viladrau, Girona, 3.6.99

Habitat: 0-2700m. Flower-rich valleys, hillsides and meadows, often near woodland; clearings and rides in coniferous forest; heathland and rocky alpine slopes.

Distribution: much of Peninsula; most common in Sistema Central, N Sistema Ibérico and Pyrenees; restricted to high mountains in south. Scarce or absent from much of W Andalucia and Extremadura; scarce in S Portugal.

Lfp: Rumex spp., inc. common sorrel (R. acetosa), sheep's sorrel (R. acetosella), R. intermedius and R. scutatus

Identification and **notes**: male uns like female. Males often seen hilltopping well above 2000m.



male, Tramacastilla, Teruel, 18.6.10



female, Víllec, Lleida, 6.7.06



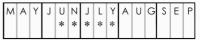
female, Tramacastilla, Teruel, 18.6.10



male, Pto. de la Ragua, S.Nevada, Almería, 28.6.07

Lycaena hippothoe (Linnaeus, 1760)

Purple-edged Copper



one brood

Habitat: 1000-1800m (occasionally lower, and up to 2500m). Damp valleys and meadows rich in flowers, often sheltered by trees; woodland rides and clearings, particularly in coniferous forest; also hillside bogs.

Distribution: Pyrenees and pre-Pyrenees from Girona to extreme east of Navarra; N Sistema Ibérico to Soria; Cantabrian-Asturian Mts. to border of Castella y León in south and Galicia in west. No records from Portugal.

Lfp: common sorrel (Rumex acetosa).



male, Porte Puymorens, Pyrénées Orientales, 28.6.01



Valley near Porte Puymorens, P.O., 17.7.03



male, Puerto de Pandetrave, León, 1.7.09



female, Supermolina, Girona, 2.7.18



female, Puigmal, Pyrénées Orientales, 21.6.10

Lampides boeticus (Linnaeus, 1767)

Long-tailed Blue

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polyvoltine



female egg-laying, Javalambre, Teruel, 27.7.13



female, Sierra Elvira, Granada, 13.5.09



female, Bellver de Cerdanya, Lleida, 29.7.01

Habitat: 0-3000m. Varied, including dry hillsides with flowers and bushes; edges of cultivated land; fields of lucerne.

Distribution: found in all areas from which there are butterfly records.

Lfp: a wide range of leguminous plants, including lucerne (*Medicago sativa*), cultivated peas and broad beans, brooms (*spartium* spp.), and bladder senna (*Colutea arborescens*).

Identification: in flight, like Lang's Short-tailed Blue but generally larger. Unhw with distinct white postdiscal band; male uphw with large black spots near tail.

Female ups distinctive, without spots on upfw. Both species are fast flying and sometimes difficult to follow by eye.

Notes: both males and females strongly attracted to the flowers of lucerne. Males frequently seen at puddles and damp patches of soil, as well as flying around the tops of hills ('hill-topping').

Larvae unable to survive the winter in northern and central Spain, and in these regions the appearance of adults in spring and early summer is dependant on migration from warmer breeding grounds nearer the coast.



male, Fredes, Castellón, 24.7.13

Leptotes pirithous (Linnaeus, 1763)

Lang's Short-tailed Blue

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polyvoltine; number of broods dependant on season and locality

Habitat: 0-1500m. Hot, dry scrubby areas, with abundance of flowers; cultivated land, especially lucerne fields.

Distribution: in suitable habitats throughout the Peninsula, with a profusion of records from the northern half of Portugal and Cáceres.

Lfp: lucerne (*Medicago sativa*) is commonly used, but other plants from a huge range of genera are also used.

Identification: male ups violet-blue with narrow black borders and two faint black spots near tail on hindwing.

Flight rapid, similar to Long-tailed Blue (*Lampides boeticus*) with which it may be confused. Usually smaller than *L. boeticus* and without white stripe on underside.



female, La Molina, Girona, 17.7.02



male, El Aquián, Almería, 27.6.07



male and female, Ripoll, Girona, 30.7.16



female, Taradell, Barcelona, 29.7.16

Cacyreus marshalli (Butler, 1898)

Geranium Bronze

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continuous broods where climate permits



male, Algeciras, Cádiz, 29.9.93

Habitat: 0-1000m, possibly higher. Mainly urban areas where cultivated geraniums are used as lfp, but often turns up in scrubby areas around towns and villages.

Distribution: since first detected as an accidental import to the Balearic Islands in 1989, the butterfly had spread, by 2004, to most Spanish provinces and much of Portugal, being only notably absent from Galicia.

Lfp: cultivated *Pelargonium* spp. particularly *P. peltatum* and *P. zonale*.

Notes: occasionally seen in warm periods during the winter months



male, Nerja, Málaga, 22.4.97



female, Castell de Ferro, Granada, 29.3.00



female, Castell de Ferro, Granada, 29.3.00

Zizeeria knysna (Trimen, 1862)

African Grass Blue

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polyvoltine

Habitat: 0-1000m. Hot, sheltered, grassy spots with enough ground water to prevent dessication of lfp in mid-summer.

Distribution: scattered colonies through southern half of Spain and much of Portugal (not NE). Mainly coastal; most common in Andalucia, but reaching E to Tarragona province.

Lfp: various leguminous plants including *Trifolium* and *Medicago* spp.

Notes: butterfly numbers build up during the year and are highest in late summer (September in coastal areas of Andalucia).



male, Torrenueva, Granada, 16.9.14



habitat, Torrenueva, Granada, 1.10.03



female, Torre del Mar, Málaga, 2.10.03



male, Playa de Granada, Granada, 25.9.03



male, Castell de Ferro, Granada, 29.3.00

Azanus jesous (Guérin-Méneville, 1849)

African Babul Blue

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polyvoltine, flying from early spring to late summer.



Acacia karoo, Cádiz, October 2014 © Matt Rowlings female, Agadir, Morocco, April 2013 © Matt Rowlings

Habitat: hot, dry places with lfp.

Distribution: at present known only from province of Cádiz in neighbourhood of Algeciras

Lfp: Acacia (*Acacia karoo*), an introduced species from South Africa.

Identification: male ups pale pinkish-brown with an overlay of blue or lilac scales depending on angle of reflection and intensity of light. Female ups gc light brown without reflective scales.

Male and female uns alike; somewhat similar to *L. pirithous* but gc a more yellow-brown and without tails. Hw costa with 3 prominent black spots, and 2 pairs of black spots on outer margin.

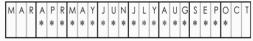
Notes: First recorded in Spain in late August 2001 in Algeciras. In 2011 a second instar larva was found on *A. karoo*, and since then there have been further sightings in the province.

Butterflies usually stay close to Ifp, but in Saudi Arabia some dispersive/migratory behaviour has been recorded.

Resident status of this butterfly too early to assess with confidence. Nearest known stable colonies are on the plains north of Marrakech.

Tarucus theophrastus (Fabricius, 1793)

Common Tiger Blue



polyvoltine



El Alquián, Almería, 14.5.09

Habitat: 0-250m. Hot, arid areas usually close to the coast, with sparse grasses and jujube bushes.

Distribution: restricted to provinces of Almería and Murcia. Local, but often common in its localities.

Lfp: jujube (Ziziphus spp).

Notes: butterflies rarely fly far from the lfp, which is their principle source of nectar. Towards the end of the day they can frequently be found settled on seedheads of grasses around the jujube bushes. Possible tendency to disperse from breeding areas under certain conditions.

Some colonies threatened by urban development and construction of new roads.



male Common Tiger Blue, El Aquián, Almería, 27.6.07



male Common Tiger Blue, Retamar, Almería, 17.9.14



female Common Tiger Blue, El Alquián, Almería, 26.4.03

Cupido argiades (Pallas, 1771)

Short-tailed Blue

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three broods



male, Martinet, Lleida, 20.7.02

Habitat: low-1500m. sheltered valleys, meadows and heaths.

Distribution: a broad northern band from Lugo to Girona including Tarragona; absent from Portugal.

Lfp: include red clover (*Trifolium pratense*), lucern (*Medicago sativa*), common bird's foot trefoil (*Lotus corniculatus*) and melilot spp. (*Melilotus*).

Identification: uns of both sexes like Provençal Short-tailed Blue (*Cupido alcetas*), but with large orange spots near tail on unhw. Male ups of both species similar.

Female ups generally with blue suffusion at base of wings, sometimes extending well towards outer margins; yellow spots usually present near tail.



male, Martinet, Lleida, 20.7.02



female, Martinet, Lleida, 30.6.01



female, Martinet, Lleida, 20.7.02



male, Posada de Valdeón, León, 13.7.00

Cupido alcetas (Hoffmannseg, 1804)

Provençal Short-tailed Blue

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polyvoltine; usually three broods

Habitat: 50-1200m. flowery meadows; woodland rides and clearings.

Distribution: NE Spain from E Navarra to Girona. Most populations are in Cataluña, esp. Girona and Barcelona; progressively rarer to west.

Lfp: black medick (*Medicago lupulina*), and possibly other leguminous plants.

Identification: similar to Short-tailed Blue (*Cupido argiades*) but lacking large bright orange spots near tail of unhw. Female ups brown, without any traces of blue scaling.



male, Martinet, Lleida, 7.7.15



habitat, Martinet, Lleida, 7.7.15



male, Martinet, Lleida, 15.7.03



female, Ripoll, Girona, 31.7.98



female, Martinet, Lleida, 17.7.03

Cupido minimus (Fuessly, 1775)

Small Blue

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sometimes a partial second brood



above La Masella, Girona, 20.6.03



female egg-laying, La Masella, Girona, 20.6.03



male, Alcoi, Alicante, 2.5.03

Habitat: 0-2400m. Rough grassland or rocky, scrubby places, usually on calcareous soils.

Distribution: mainly northern and central mts.; absent from west Andalucia, Badajoz and Toledo; widespread but scarce in Cataluña; more common in mts. of Alicante; rare in most of Teruel and Zaragoza, NW Spain and most of Portugal.

Lfp: kidney vetch (Anthyllis vulneraria).

Identification: males usually with a dusting of scattered blue scales on ups of all wings; females dark brown without blue scales, but with slight violet and green sheen when fresh. Female Osiris Blue (*Cupido osiris*), is similar but usually a little larger and with more of a silvery-blue flush on the uns.

C. minimus f. noguerae: similar to nominate form but males without blue scaling on ups. Found in Sierra Alta and Sierra de Albarracín (Teruel), sometimes alongside nominate form.

Taxon *carswelli*: sometimes given specific status, sometimes treated as a ssp of *C. minimus*; recently referred to as a ssp of *C. lorquinii*.

Like C. minimus minimus, but male ups with basal scattering of purple scales instead of blue. Found above 1000m in mts. of SE Spain: Sierra de Espuña (Murcia), Sierra de Alcaraz (Albacete), Sierra de Segura and Sierra de Cazorla (Jaén), Sierra de la Sagra (Granada), Sierra de María (Almería) and Sierra de Tejeda (Málaga).



pair (male left), La Bonaigua, Lleida, 27.6.18



male, Martinet, Lleida, 19.5.05



male, Alcoi, Alicante, 2.5.03



puddling group, La Bonaigua, Lleida, 27.6.18

Cupido osiris (Meigen, 1829) Osiris Blue

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partial second brood in favourable seasons



female egg-laying, Cava, Lleida, 11.6.04

Habitat: 500-1800m. Flowery meadows and hillsides, usually with some scrub and an abundance of larval foodplant.

Distribution: apart from a few scattered colonies in NW Spain, flies E of a line running roughly from Gijón in the N, to Almería in the S, though there are some questionable records well to the W of this. Absent from Portugal.

Lfp: sainfoins (Onobrychis spp.), esp. O. viciifolia.

Identification: male distinctive; female like Small Blue (*C. minimus*) but usually slightly larger, and uns usually with a more silvery hue.



male, Valle de Chistau, Huesca, 13.6.10



male, Martinet, Lleida, 21.6.10



female, Valle de Chistau, Huesca, 13.6.10



male, Tramacastilla, Teruel, 18.6.10

Cupido lorquinii (Herrich-Schäffer, 1850)

Lorquin's Blue

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one brood

Habitat: 0-1800m. Dry limestone hillsides and gullies with sparse grasses and scrub; flowery clearings in light woodland.

Distribution: SW Spain: mainly Cádiz, Málaga and Granada, but also Badajoz and Albacete, and some isolated records from Huelva, Sevilla, Córdoba, Almería and Alicante. In Portugal, mainly Algarve, but scattered records from as far north as Leiria.

Identification: males ups blue-violet to purple, with distinctive broad dark margins.

Female similar to *Cupido osiris* and *C. minimus*; distributional overlap rare.

For taxon carswelli see Cupido minimus.

Lfp: kidney vetch (Anthyllis vulneraria).



male, Puerta de la Refriega, Málaga, 4.5.09



habitat, Puerta de la Refriega, Málaga, 4.5.09



male, Monchique, Algarve, 25.4.07



pair, Nerja, Málaga, 5.5.07



female, Nerja, Málaga, 5.5.07

Glaucopsyche alexis (Poda, 1761)

Green-underside Blue

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one brood



male, Tramacastilla, Teruel, 18.6.10



female, Prullans, Lleida, 17.5.02



male, Albarracín, Teruel, 19.6.10

Habitat: 0-1200m. Flowery meadows, scrub and open woodland.

Distribution: widely dispersed in northern and central areas of Spain; restricted to mts. in south; absent from S Portugal, but scattered colonies in the north. Appears absent from Huelva, Córdoba, Jaén and Badajoz; rare in NW of Peninsula.

Lfp: mainly sainfoin (*Onobrychis viciifolia*), lucern, (medicago sativa), Dorycnium hirsutum and D. pentaphyllum.

Identification: in flight, easily mistaken for Holly Blue (*Celastrina argiolas*) and Black-eyed Blue (*Glaucopsyche melanops*); upfw of both sexes without chequered fringes; uns like *G. melanops* but lacking the faint marginal markings; unhw usually with extensive iridescent turquoise.

Notes: males are often seen drinking at puddles or from damp soil.



pair (female left), Alp, Girona, 10.6.04

Glaucopsyche melanops (Boisduval, 1828)

Black-eyed Blue

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one brood

Habitat: 50-900m in northern areas; up to 1500m in southern mts. Dry, scrubby hillsides, often with broom.

Distribution: suitable habitats throughout most of the Peninsula; absent from most of the northern coastal zone and much of the E and W Pyrenees.

Lfp: leguminous plants, especially *Dorycnium pentaphyllum* and *Anthyllis cytisoides*.

Identification: similar to Green-underside Blue (*Glaucopsyche alexis*), but with faint marginal uns markings and relatively little turquoise on unhw; black borders on upfw usually wider, esp. in south. Female uns similar to male.



male, Valle de Chistau, Huesca, 13.6.10



female, Sierra Alhamilla, Almería, 6.5.93



male, Valle de Chistau, Huesca, 13.6.10



female, Taradell, Barcelona, 18.5.05



male, Prado Negro, Granada, 15.5.09

Celastrina argiolas (Linnaeus, 1758)

Holly Blue

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two or three broods



male, Víllec, Lleida, 4.7.01

Habitat: 0-2500m+. This butterfly can turn up almost anywhere, but is perhaps most often seen near hedgerows, along woodland edges, rides and tracks and in parks and gardens.

Distribution: scattered throughout Peninsula.

Lfp: the flower buds of a large range of plants have been recorded for this butterfly, inc. various species of ivy (*Hedera*), broom (*Genista*), bramble (*Rubus*) and holly (*Ilex*).

Identification: male ups like Green-underside Blue (*Glaucopsyche alexis*) but white fw margin crossed with black at veins, giving it a chequered fringe. Easily mistaken for *G. alexis* in flight.



female, Maleta, Navarra, 17.8.08



male, Leitza, Navarra, 17.8.08



female, Viladrau, Girona, 4.6.99

Iolana debilitata (Schultz 1905)

Spanish Iolas Blue

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one brood

Habitat: 400-1400m. Rocky, bushy places; woodland margins, tracks and clearings with lfp.

Distribution: four areas: one in SE Madrid, another centred on the city of Granada, a third in the Serranía de Cuenca and Sierra de Albarracín, and a fourth centred on the province of Barcelona.

Isolated records exist from sixteen more provinces, in Andalucia, NE Spain, Extremadura and around

Lfp: bladder senna (Colutea arborescens/hispanica).

Madrid. Not recorded in Portugal.

Identification: male similar to Black-eyed Blue (*Glaucopsyche melanops*) and Green-underside Blue (*G. alexis*), but usually much larger; black margin on ups narrow, not thickening significantly towards apex.

Females like those of *G. melanops* that have a lot of blue on their wings, though again much larger. Male and female uns alike. Unfw black postdiscal spots form a gentle curve (almost parallel to wing margin); abruptly curved in *melanops* and *alexis*. Uns with faint grey-brown marginal spots, like *G. melanops*, strongest on hw, though not always easily discernible.

Notes: often regarded as a ssp. of Iolana iolas.



habitat, La Roca, Taradell, Barcelona, 24.5.05



female, Taradell, Barcelona, 24.5.05



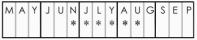
female, Taradell, Barcelona, 24.5.05



female, Taradell, Barcelona, 24.5.05

Phengaris alcon (Denis and Schiffermüller, 1775)

Alcon Blue



one brood



habitat, Alp, Girona, 20.6.03



male, Alp, Girona, 2.7.18



male, Alp, Girona, 2.7.18

Represented by two main subspecies: ssp *alcon* and ssp *rebeli*.

Subspecies *alcon* (not pictured)

Habitat: 0-1100m. Flat marshy river plains and valleys; damp meadows.

Distribution: all the provinces of Galicia as well as the provinces of Asturias, Santander, León, Zamora, Burgos, La Rioja, Navarra and Soria. In Portugal a large cluster of colonies in the Alto Douro which stretches south to the region of Beira Alta.

Lfp: marsh gentian (*Gentiana pneumonanthe*). In late summer larvae adopted by ants and taken into their nest, where, in a symbiotic relationship with the ants, further growth, hibernation and pupation takes place.

Identification: similar to ssp *rebeli* but restricted to damp fields and marshy areas where the lfp grows. ssp *rebeli* absent from regions where *P. alcon alcon* is found.

Notes: butterflies from Burgos (S. de la Demanda) and Soria sometimes referred to as ssp. *hospitali*; butterflies from Navarra and La Rioja may also belong to this subspecies.

Subspecies rebeli

Habitat: 900-2000m. Damp grassy areas with lfp; often partly shaded by bushes or trees.

Distribution: Pyrenees (Huesca to Girona) and southern areas of Sistema Ibérico (Teruel: Sierra de Gúdar and Cantavieja).

Lfp: cross gentian (*Gentiana cruciata*). Life-cycle like that of nominate form.

Identification: females like Large Blue (*Phengaris arion*) but uns a light fawn colour and less heavily spotted than *P. arion*; ups blue scaling usually less extensive. *P. arion* generally larger.

Both sexes like ssp *alcon*, but not known to overlap in distribution or type of habitat used.

Notes: *ssp rebeli* has sometimes been treated as a separate species.



egg-laying female, Alp, Girona, 2.7.01

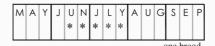


female, Alp, Girona, 16.7.02



female, Alp, Girona, 2.7.01

Phengaris arion (Linnaeus, 1758) Large Blue





male, Víllec, Lleida, 7.7.15



male, Guadalavir, Teruel, 18.6.10



female, below Estana, Lleida, 4.7.01

Habitat: 800-1800m. Dry grassy hillsides with scrub and some marjoram or thyme growing in partly shaded conditions; also recorded in light coniferous woodland with connected grassy clearings.

Distribution: Montseny massif in Cataluña, north to pre-Pyrenees and Pyrenees and across to Montes Vascos and the Cantabrian-Asturian Mts. Also La Rioja south through Sistema Ibérico as far as Serranía de Cuenca. Some isolated colonies in Galicia and SW León. No records from Portugal.

Lfp: thyme species, inc. wild and common thyme (*Thymus serpyllum* and *T. praecox*); also marjoram (*Origanum vulgare*).

Identification: in flight, like Alcon Blue (*Phengaris alcon*) which sometimes shares the same habitat. Females of the two species sometimes similar: *Parion* usually larger, with more blue on ups and larger spots on uns.

Notes: butterflies frequently nectar on marjoram thyme and sainfoin. Life history similar to that of *M. alcon*, though larvae cannibalistic and only one from each ant's nest is able to survive and emerge as a butterfly.



female, Sierra de Andía, Navarra, 6.7.09

Phengaris nausithous (Bergsträsser, 1779))

Dusky Large Blue

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one brood

Habitat: 1100-1400m. Wet meadows with lots of great burnet.

Distribution: three nuclei: one in the province of Madrid, another in Soria and a third in the Asturian-Cantabrian mts.

Lfp: great burnet (Sanguisorba officinalis).

Notes: life-cycle like that of all *Phengaris* species: in late summer larvae leave the foodplant and are taken by ants into their nests, where they complete their growth and pupate.



female egg-laying, Cantabrian Mts., León, 9.7.00



habitat, Cantabrian Mountains, León, 27.6.09



female, Cantabrian Mountains, León, 6.7.97



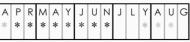
male, Cantabrian Mountains, León, 1.7.09



male, Cantabrian Mountains, León, 6.7.97

Pseudophilotes baton (Bergsträsser, 1779)

Baton Blue



usually one brood, but sometimes a partial second



female, Lles, Lleida, 12.6.04

Habitat: 900-1600m. Various places with thyme e.g. scrubby hillsides, heaths and mountain-sides. **Distribution**: Pyrenees, Cantabrian Mountains, Galicia and N Portugal south towards Lisbon. **Lfp**: various thymes (*Thymus* spp.).

Identification: usually with bright orange submarginal spots on hw. Male ups dark wing margins variable, usually stronger in 2nd brood, sometimes virtually absent in first. Extent of blue scaling on female ups variable.

Probably some overlap with the similar Panoptes Blue (*Pseudophilotes panoptes*) in foothills of Pyrenees.



male first brood, Valle de Chistau, Huesca, 12.6.10



female, Bellver de Cerdanya, Lleida, 31.5.99



male second brood, Martinet, Lleida, 3.8.02

Pseudophilotes panoptes (Hübner, 1813)

Panoptes Blue

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one brood

Habitat: 600-2100m. Various places with thyme e.g. scrubby hillsides, heaths and mountain-sides.

Distribution: most of Spain south of Galicia, the Cantabrian Mountains and the Pyrenees; scattered in southern and central Portugal. Probably some overlap with Baton Blue (*Pseudophilotes baton*) in foothills of Pyrenees.

Lfp: various thymes (Thymus spp.).

Identification: male and female uns alike. Like Baton Blue (*P. baton*) but unhw pale submarginal lunules reduced or absent; male androchonial scales slightly different from those of *P. baton*. In southern regions, small individuals can easily be mistaken for False Baton Blue (*Pseudophilotes abencerragus*), which sometimes shares the same habitat: *P. panoptes* almost always larger; male ups blue scaling lighter and better defined; apex of upfw slightly less rounded. Uns ground colour usually blue-grey (pale brown in *P. abencerragus*). *P. abencerragus* much more local, usually flying close to its lfp. *Cleonia lusitanica*.

Notes: flight generally from March to May, but relatively fresh butterflies seen above the Puerto de La Ragua, Granada at end of June (example below).



male, Puerto de La Ragua, Granada, 26.6.07



female, Prado Negro, Granada, 10.5.09



male, Prado Negro, Granada, 10.5.09



female, Prado Negro, Granada, 10.5.09

Pseudophilotes abencerragus (Pierret, 1837)

False Baton Blue

| Α | Р | R | М | Α | Υ | J | U | Z | J | L | Υ | Α | U | G | S | Е | Р |
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one brood



male, Vega de Granada, Granada, 30.4.07

Habitat: dry, flowery, grassy areas with lfp and usually some scrub.

Distribution: southern half of Spain, especially in the mts. of Málaga, Granada, Murcia and south Madrid (notably near Aranjuez). Scattered colonies in central Portugal; relatively abundant in Algarve. **Lfp:** the labiate, *Cleonia lusitanica.*

Identification: like *Pseudophilotes panoptes* which often shares the same habitat; more local; usually smaller; upfw discal spot often edged white, esp. in female. Male ups with dark blue scales, becoming sparse towards edges of wings, esp. fw apex. Uns ground colour in both sexes brownish-grey rather than blue-grey. Males fly close to the ground in small territorial areas usually not far from lfps.



female, Vega de Granada, Granada, 4.5.07



habitat, Vega de Granada, Granada, 4.5.07



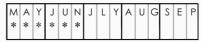
female, Vega de Granada, Granada, 4.5.07



male, Vega de Granada, Granada, 30.4.07

Scolitantides orion (Pallas, 1771) ssp. lariana (Frühstorfer 1910)

Chequered Blue



one brood

Habitat: 0-1050m. Hot rocky areas with scrub on calcareous substrates.

Distribution: scattered; mainly in the east. Absent to the west of a line drawn through Palencia to the Alicante-Murcia border, as well as from Albacete Castellón, Cantabria, Vizcaya and Guipúzcoa. Relatively widespread in Cataluña.

Lfp: sedum species esp. *S. sediforme,* white stone-crop (*S. album*), Spanish stonecrop (*S. hispanicum*), and *S. telephium*.

Notes: a record of a fresh female one hot summer in late July may indicate a possible partiaol second brood in favourable seasons.



female, Martinet, Lleida, 18.5.02



male, below Prullans, Lleida, 17.5.02



male, Colomarde, Teruel, 26.5.99



female, Víllec, Lleida, 31.5.99



female, Bellver de Cerdanya, Lleida, 17.5.02

Plebejus argus (Linnaeus, 1758) Silver-studded Blue



female ssp. pyrenaica, Alp, Girona, 17.6.03



male ssp. hypochonia, Los Filabres, Almería, 27.6.07



male + female, ssp. pyrenaica, Alp, Girona, 1.7.01

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usually one brood, but in part of Cataluña possibly three, flying between late April and Sptember.

Habitat: 0-2400m (below 1600m in the north). Varied, from scrubby hillsides, woodland clearings and damp or dry meadows to rocky mt. gullies.

Distribution: widespread: scarce in S Portugal and S Extremadura; no known records from Badajoz or Córdoba; more scattered in south of Peninsula.

Lfp: a wide range of plants reported from Iberian Peninula, inc. *Trifolium, Ulex, Astragulus, Colutea, Genista, Coronilla*, and *Caluna* spp.

Identification: like Idas Blue (*Plebejus idas*); male black wing margins generally wider and uns usually whiter than *P. idas*. With a strong magnifying glass a small spine may be found on the tibia of the male foreleg which is absent in *P. idas* (see below). Females of *P. argus* usually smaller, with denser spotting on underside. Unless sharing a habitat, close proximity to positively identified males will help verify identity of females.

P. argus: foreleg taken from a male found dead, showing spine on tibia.



Notes: at least 17 subspecies have been described from the region.



male ssp. pyrenaica, Bellver de Cerdanya, 29.6.01

Plebejus idas (Linnaeus, 1761) Idas Blue



one brood

Habitat: usually between 1000-3000m. Sheltered flowery places, often damp.

Distribution: E Galicia through Asturias, N León, Cantabria, N Palencia, Burgos, Álava and La Rioja to Navarra; across Pyrenees to Girona, including central Huesca; Sistemas Central and Ibérico; also some colonies in Andalucia (e.g. Sierra Nevada).

Lfp: many species from the pea family, including broom (*Cytisus scoparius*), bird's-foot trefoil (*Lotus corniculatus*) and kidney vetch (*Anthyllus vulneraria*); also heather (*Calluna vulgaris*).

Identification: like *Plebejus argus*; male uns usually buff; ups black borders generally narrow and tibia of foreleg without spine (see *P. argus*).



female ssp. nevadensis, La Ragua, Almería, 30.6.07



female, Velilla del Rio Carrión, Palencia, 29.6.09



male ssp. nevadensis, La Ragua, Granada, 28.6.07



male, Velilla del Rio Carrión, Palencia, 29.6.09



pair, Velilla del Rio Carrión, Palencia, 29.6.09

Kretania hesperica (Rambur, 1839)

Spanish Zephyr Blue



Habitat: 400-1200m. dry, grassy and rocky areas with some scrub; clearings in open woodland.

Distribution: mainly in the three regions of Madrid -Guadalajara-Toledo, Teruel-Cuenca, and Granada. Some isolated records from Almería, Alicante, Ciudad Real and Valencia.

Lfp: various Astragulus species inc. A. turolensis and A. sempervirens muticus (Sierra de Albarracín), A. clusii (Sierra Nevada) and A. alopecuroides (Granada, Toledo and Madrid).

Identification: a little like Idas Blue (*P. idas*) but unhw without silvery-blue spots at outer edge of orange submarginal lunules. Male ups often appears a light, shining blue; uphw usually with black submarginal spots, esp. in nominate form. Like Escher's Blue (*Polyommatus escheri*), but unhw red or orange spots mainly joined to outer black spots; inner black edging on most orange spots inner black edging on most orange spots.

spots; inner black edging on most orange spots joined to black postdiscal spots by white triangles; male ups usually appears a lighter shade of blue. Female uns light brown with a complete series of strong submarginal orange spots on fw and hw. Ups brown with large orange submarginal spots on hw, sometimes extending to fw.

In provinces of Toledo and Madrid, ssp. *galani*: averagely larger; male ups perhaps slightly brighter.



male, Tramacastilla, Teruel, 18.6.10



male, Albarracín, Teruel, 19.6.10



female, Loeches, Madrid

Matt Rowlings



male, Albarracín, Teruel, 19.6.10



habitat, Albarracín, Teruel, 17.6.10



male, Albarracín, Teruel, 19.6.10



male, Albarracín, Teruel, 19.6.10

Agriades pyrenaicus (Boisduval, 1840)

Gavarnie Blue



one brood



male, Fuente Dé, Cantabria, 12.7.00

Habitat: 1800-2500m. Short grazed grassland with rocky outcrops; stony or rocky limestone slopes with sparse vegetation.

Distribution: nominate race in Pyrenean valleys of Ara, Tena and Canfranc (Huesca); in Cantabrian Mountains - *A. pyrenaicus asturiensis*.

Lfp: Androsace villosa.

Identification: in Pyrenees separated from similar Glandon Blue (*Agriades glandon*), by diagnostic black submarginal lunules in s3-5 of unfw.

Notes: male nominate form with duller ups and less pronounced white submarginal area; female uphw pale submarginal lunules less developed. Butterflies pictured here are all ssp. *asturiensis*.



female, Fuente Dé, Cantabria, 12.7.00



habitat above Fuente Dé, Cantabria, 12.7.00



female, Fuente Dé, Cantabria, 12.7.00



male, Fuente Dé, Cantabria, 12.7.00



habitat above Fuente Dé, Cantabria, 12.7.00



female, Fuente Dé, Picos de Europa, Cantabria, 7.7.97



male, Fuente Dé, Picos de Europa, Cantabria, 7.7.97

Agriades glandon (Prunner 1798) Glandon Blue



Habitat: 1500-3000m. High stony grassland with thin soils and presence of larval foodplant.

Distribution: 1500-2500m in high Pyrenees (extreme east of Navarra to west Girona, inc. Sierra del Cadí).

Lfp: Vitaliana primuliflora and Androsace villosa.

Identification: distribution overlaps in Pyrenees with similar Gavarnie Blue (*Agriades pyrenaicus*); unfw without black submarginal lunules in s3-5.



Tossa d'Alp at about 2250m, Girona, 10.7.03



female egg-laying, Tossa d'Alp, Girona, 12.7.15



female, Tossa d'Alp, Girona, 6.7.05

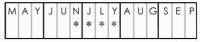


male, Tossa d'Alp, Girona, 10.7.03



male, Coll del Pal, Girona, 16.7.03

Agriades zullichi (Hemming 1933) Zullich's Blue



one brood

Habitat: 2600-3000m. Sheltered gullies & shallow depressions where small clumps of lfp grow on rather barren, stony ground.

Distribution: Sierra Nevada (Granada & Almería), in very localised colonies that are mainly small. **Lfp:** *Vitaliana primuliflora* ssp. *assuana*.

Identification: butterflies fly very fast, just above the ground; often extremely small and easily overlooked. Unfw with or without inner discal spot. No similar species fly in the sierra.

Notes: frequently found flying with Spanish Argus (*Aricia morronensis*).

Once regarded as a ssp. of the Glandon Blue (*Agriades glandon*).



habitat, Sierra Nevada, Granada, 3.7.07



female egg-laying, Sierra Nevada, Granada, 3.7.07



male, Sierra Nevada, Granada, 7.7.07



female, Sierra Nevada, Granada, 3.7.07



male, Sierra Nevada, Granada, 7.7.07

Aricia cramera (Eschscholtz, 1821)

Southern Brown Argus

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Gerona province.

two or three broods according to altitude



female 1st brood, Hoya de Baza, Granada, 29.4.07



female 2nd brood, Pto. de la Ragua, Granada, 28.6.07



male 1st brood, below La Sagra, Granada, 29.4.07

Habitat: 0-2000m+. Flower-rich hillsides, meadows, woodland clearings and rocky places. **Distribution**: widespread throughout most of the Peninsula but replaced by *A. agestis* in most of

Lfp: Helianthemum, Geranium and Erodium spp.

Identification: male uns similar to female; ground colour in both sexes variable; browner in summer brood(s).

Like Mountain Argus (*Aricia montensis*): male ups orange-red lunules usually more extensive. Females usually more difficult to separate, esp. in northern regions where the ups orange lunules are smaller. In the South, *A. cramera* usually the smaller of the two species. *A. montensis* rarely seen below 1000m and not before June.

Separation from *A. agestis* in Cataluña requires examination of male genitalia.

Aricia agestis (Denis & Schiffermüller) Brown Argus (not pictured)

Flight: usually bivoltine (April to September).

Habitat: 0-1600m. Flower-rich hillsides, meadows, open woodland and woodland clearings.

Distribution: absent from most of the Peninsula, but according to Vila et al. 2018, widespread in N and NE Cataluña, extending SW to the Montseny and NW to areas bordering the Province of Huesca, including the Val d'Aran.

Lfp: *Helianthemum nummularium* in the mountains, and mainly *Geranium* spp. at lower altitudes.

Identification: visually inseparable in the field from *A. cramera*, but male genitalia different. Separation from *A. montensis* like separating *A. cramera* from *A. montensis* (see above).

Notes: in areas where these species co-exist some hybridization occurs between all three, but it is likely that fertility problems in the hybrids keep the species separate.

Aricia montensis (Verity, 1928) Mountain Argus

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Habitat: 900-2200m. Varied, from dry flowery scrub to high mountain grassland and rocky gullies, usually on calcareous soils.

Distribution: flies in the Cantabrian Mountains and Pyrenees, Sistema Central and Sistema Ibérico, running SW through mts. of E and S Andalucia.

Lfp: mainly Erodium and Helianthemum spp.

Identification: often larger than *Aricia cramera* which may share habitat. Male upfw series of orange submarginal lunules usually incomplete, sometimes absent; number of lunules on uphw sometimes reduced.

Female ups with complete series of orange lunules on both wings, making separation from *A. cramera* and *A. agestis* difficult in many regions (in southern regions *cramera* females usually have much larger lunules, and are more easily separated).

Uns ground colour light creamy-brown, sometimes grey in male.

Note: sometimes regarded as a subspecies of *Aricia* artaxerxes.



male, Sierra de los Filabres, Almería, 27.6.07



male, Sierra Arana, Granada, 25.6.07

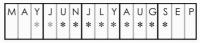


male, Hervás, Cáceres, 26.6.09



female, Sierra Arana, Granada, 25.6.07

Aricia morronensis (Ribbe, 1910) Spanish Argus



usually one brood, often prolonged



female ssp. ramburi, Sierra Nevada, 26.6.07



male ssp. ramburi, Sierra Nevada, 26.6.07



female ssp. ramburi, Sierra Nevada, 26.6.07

Habitat: A species with many different races or subspecies, found in a wide variety of habitats from flowery roadsides and meadows at 800m to almost bare stony alpine slopes at 3000m.

Distribution: colonies widely scattered: recorded in the provinces of Lugo, Zamora, León, Asturias, Cantabria, Burgos, Álava, La Rioja, Soria, Navarra, Huesca, Andorra, Lleida, Girona, Madrid, Segovia, Ávila, Teruel, Castellón, Alicante, Murcia, Albacete, Jaén, Granada, Almería and Málaga; only recorded from a few localities in most of these provinces.

Lfp: various species of Erodium.

Notes: each race or subspecies varies averagely in size and in the development of orange submarginal lunules on ups, and black spots on uns; they include the following:

A. morronensis morronensis: flies on rocky ground with sparse vegetation in the Sierra de Espuña and the sierras Cazorla, Segura, María and La Sagra; similar to ramburi, pictured here.

Lfos include Erodium cheilantifolium.

A. morronensis ramburi: flies on exposed rocky slopes with sparse vegetation in the S. Nevada, between 2000-3000m. Colonies occupy small areas centred on patches of the lfp, Erodium petraeum crispum.



habitat, Sierra Nevada, Granada, 2.7.07

A. morronensis ordesae (not pictured) flies in rocky terrain in the high Pyrenees of Huesca and Andorra as well as in the provinces of Lleida and Girona, between 1300m and 2200m. Like ssp. ramburi, though typically both sexes have 2-3 orange uphw lunules. Female upfw often has a few submarginal lunules and sometimes an apical patch of white scales.

Lfps include Erodium foetidum.

A. morronensis hesselbarthi (bottom right): flies between 950m and 1100m near Abejar, Soria. It is the largest of the known subspecies and has well defined submarginal lunules on uphw. It flies in fields and along roadsides and is reported to be bivoltine (May/June and July/august), though in 1997 the author found that all of the butterflies seen flying in the last week of June were fresh; this was at a time when many other subspecies normally begin their prolonged, single-brooded emergence. Lfp: storksbill (Erodium cicutarium), a tall pink flowering plant.

A. morronensis navarredonde (opposite): similar to nominate form, with two vestigial submarginal lunules on uphw of both sexes. Flies on flowery, grassy slopes and along roadsides in the Sierra de Gredos and Sierra de Piedrahita (Ávila). Lfp: a short pink flowered storksbill (Erodium sp.).



habitat, Sierra de Piedrahita, Ávila, 25.6.09



male navarredondae, S. de Piedrahita, Ávila, 25.6.09

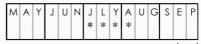


male navarredondae, S. de Piedrahita, Ávila, 25.6.09



female ssp. hesselbarthi, Abejar, Soria, 26.6.97

Aricia nicias (Meigen, 1829) Silvery Argus



one brood



habitat, Porte Puymorens, P.O., 12.7.03

Habitat: 1400-2000m. Damp, grassy places with cranesbill, sheltered by trees.

Distribution: E Pyrenees in Pyrénées Orientales (France), Girona, Andorra and Lleida (esp. Val d' Aran).

Lfp: mainly wood cranesbill (*Geranium sylvaticum*) but meadow cranesbill (*G. pratense*) also reported.

Identification: male ups similar to Damon Blue (*Polyommatus damon*) but smaller and not likely to be found in same habitat. Female like Geranium Argus (*Eumedonia eumedon*), but smaller; uphw lacking orange submarginal lunules.

Male and female uns similar, with white stripe on hw continuing beyond discal spot.



pair, Porte Puymorens, P.O., 10.7.15



male, Porte Puymorens, P.O., 12.7.03



male, Porte Puymorens, P.O., 13.7.01



female, Vall d'Eina, Pyrénées Orientales, 23.7.04

Eumedonia eumedon (Esper, 1780) Geranium Argus

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one brood

Habitat: 400-2500m. Damp flower rich-valleys and meadows with cranesbills (*Geranium* spp.). Distribution: scattered in Cantabrian Mts. and Sistemas Central and Ibérico; more abundant in Pyrenees (Huesca to W Girona); isolated colonies in NE Portugal and Zamora as well as Andalucia (Sierra Tejeda, Sierra Prieta and Sierra María). Lfp: wood cranesbill (*Geranium sylvaticum*), meadow cranesbill (*G. pratense*), bloody cranesbill (*G. sanguineum*) and *Erodium* spp.

Identification: ups usually a darker brown than female Silvery Argus (*Aricia nicias*). Like female Mazarine Blue (*Cyaniris semiargus*), but females usually with faint orange submarginal lunules on uphw. Uns spotting and white stripe distinctive.



male, La Molina, Girona, 20.6.03



female, Puigmal, Pyrénées Orientales, 19.6.03



female aberration, La Molina, Girona, 20.6.03



female, Porte Puymorens, P.O., 28.6.01



male, La Molina, Girona, 20.6.03

Cyaniris semiargus (Denis and Schiffermüller, 1775)

Mazarine Blue



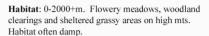
one brood



female, Puerto de La Bonaigua, Lleida, 3.7.10



female, Puigmal, Pyrénées Orientales, 21.6.10



Distribution: most of the Peninsula, esp. N, C and E mts. Absent from Guipúzcoa, Pontevedra, La Coruna, Valladolid, S Cáceres, Badajoz, Toledo, Ciudad Real, Córdoba, Málaga, Alicante and Valencia. Extremely local in N, C and S Portugal;

Lfp: mainly red clover (*Trifolium pratense*), Also white clover (*T. repens*), thrift (*Armeria maritima*), and A. alliasea. In S Andalucia: A. velutina, and in Granada, kidney vetch (*Anthyllis vulnereria*). Plants from the following genera also reported: *Genista, Vicia, Onobrychis*, and Oxytropis.

Identification: width of dark edging on male ups varies from a thin black line to an extensive band which becomes diffuse towards submarginal and discal regions.

Female ups usually brown but sometimes with extensive blue scaling; completely brown females similar to female Osiris Blue (*Cupido osiris*) but usually significantly larger, with a less silvery uns; unhw generally has faint submarginal spots. Brown females also like Geranium Argus (*Eumedonia eumedoni*) but without any trace of orange submarginal spots on uphw; uns very different.



pair, Sierra de Piedrahita, Ávila, 25.6.09



male, Tramacastilla, Teruel, 18.6.10

Polyommatus damon (Denis and Schiffermüller, 1775)

Damon Blue

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one brood

Habitat: 800-1800m. Dry flowery meadows and hillsides, often close to woodland.

Distribution: widespread and relatively common in Cantabrian Mts. and Pyrenees; also Sistema Iberíco to Sierra de Javalambre and Sierra de Gúdar.

Lfp: sainfoins (Onobrychis spp.).

Identification: males distinctive. Females like anomolous blue females (*P. ripartii* + *P. fabressei*) but ups wing fringes white (dull creamy brown in anomolous blues); very similar to female Spanish Furry Blue (*P. fulgens*); unfw black spots usually smaller; unhw white stripe always present and very strong; ups without distinct dark veins.



female, Bescaran, Lleida, 4.8.06



male, Martinet, Lleida, 3.8.02



female, Martinet, Lleida, 30.7.98



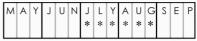
pair (male top), Griegos, Teruel, 27.7.17



male, Martinet, Lleida, 18.7.02

Polyommatus fulgens (Sagarra, 1925)

Spanish Furry Blue



one brood



male, Solsona, Lleida, 16.7.01



female, Solsona, Lleida, 16.7.01



male, Solsona, Lleida, 16.7.01

Habitat: 600-1800m. Dry, grassy, flowery slopes; edges of cultivated land; disused terraces; clearings in light woodland.

Distribution: mainly Barcelona (ssp. *fulgens*), northern Huesca, Álava and La Rioja (ssp. *ainsae*), and Burgos (ssp. *pseudovirgilia*). Colonies are also found in Lleida, Tarragona, the extreme north of Zaragoza and Navarra; isolated records from León, Palencia and Cantabria. Distributional relationship in Lleida Province between ssp. *ainsae* and the nominate ssp. *fulgens* is unclear.

Lfp: sainfoin (Onobrychis viciifolia).

Identification: male ups distinctive. Male uns, when striped, like Damon Blue (*Polyommatus damon*) but usually with paler, creamy-brown background colour (uns of anomolous blues *P. ripartii* and *P. fabressei* are a dull brown).

Females difficult to separate from anomolous blues but ups usually with whiter wing fringes and black veins more pronounced; unfw spots usually larger than those of anomolous blues.

Striped females similar to female Damon Blue but prominent black veins on ups and small dark submarginal spots on uphw should allow confident separation.

White stripe on unhw of both males and females may or may not be present in individuals from any colony.

Note: often referred to as the Catalan Furry Blue.



female, Solsona, Lleida, 16.7.01

Notes: ssp. *ainsae* visually impossible to separate with certainty from nominate form. It has, until recently, been regarded as a separate species, and called Forster's Furry Blue.

The butterflies pictured opposite are from an area where both ssp. *ainsae* and the nominate form, *fulgens* might fly, though being S of the Sierra del Cadí, they are most likely to belong to *fulgens*; the relatively large size of many of the males, and the strong blue tinge to their wings support this view.

P. fulgens pseudovirgilia from Burgos Province is a distinctive ssp. with very prominent raised greybrown scent-scales clustered alongside the veins on the upfw.



female ssp. ainsae, S. de la Peña, Huesca, 13.8.08



habitat, Montes Obarenes, Burgos, 15.8.08



male ssp. ainsae, S. de la Peña, Huesca, 13.8.08



pair ssp. pseudovirgilia, Montes Obarenes, 15.8.08



male ssp. pseudovirgilia, Montes Obarenes, 13.8.08

Polyommatus violetae (Gomez Bustillo and Borrego 1979)

Andalucian Anomolous Blue

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one brood



female, Collados de La Sagra, Granada, 20.7.17

Habitat: 750-2100m. Dry, stony grassland with flowers and usually with bushes and trees.

Distribution: NE Granada, esp around La Sagra as well as E flanks of Sierra Nevada; Sierras de Segura and Cazorla (Jaén), Sierra de Alcaraz (Albacete) and Sierra de Tejeda (Málaga),

Lfp: sainfoins; *Onobrychis argentea* in southern populations and Sierra Cazorla; *O. matritensis* in Sierra de Alcaraz.

Identification: visually inseparable from *P. ripartii* and *P. fabressei*. Genetic studies at present support specific rank. No known overlap in distribution with the other two species.

Notes: more often with unhw white stripe than without.



female, Collados de La Sagra, Granada, 20.7.17



male, Collados de La Sagra, Granada, 20.7.17



male, Collados de La Sagra, Granada, 20.7.17



pair (male left), Collados de La Sagra, 20.7.17

Polyommatus fabressei (Oberthür, 1910)

Oberthür's Anomolous Blue

| M | Α | Υ | J | U | Ζ | J | L | Υ | Α | U | G | S | Е | Р |
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one brood

Habitat: 900-1520m. Dry, flowery, stony areas with scrub.

Distribution: Sistema Ibérico and Sistema Central (Soria, Guadarrama, Madrid, Teruel and Cuenca).

Lfp: sainfoins (Onobrychis spp. esp. O. viciifolia).

Identification: females separated from Damon Blue (*Polyommatus damon*) which flies in parts of the Sistema Ibérico, by their dull creamy ups fringes. Visually inseparable from Ripart's Anomolous Blue and Andalucian Anomolous Blue (*P. ripartii* and *P. violetae*), but apparently no distributional overlap between the three species. Unhw white stripe usually weak or absent.



female, Albarracín, Teruel, 3.8.13



male, Albarracín, Teruel, 28.7.13



female, Albarracín, Teruel, 25.7.04



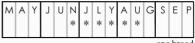
pair (male right), Tragacete, Cuenca, 28.7.17



male, Albarracín, Teruel, 28.7.13

Polyommatus ripartii (Freyer, 1830)

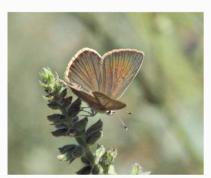
Ripart's Anomolous Blue



one brood



male, Puerto de Azaceta, Álava, 5.7.09



female, Martinet, Lleida, 21.7.02



male, near Solsona, Lleida, 16.7.01

Habitat: 900-1520m. Dry flowery meadows and hillsides, usually with scrub.

Distribution: Cantabrian Mts. and Pyrenees from Palencia to Girona; mainly Burgos, Álava, La Rioja, N Huesca and Cataluña (scarce in Tarragona). Isolated records from Asturias, Valladolid and Soria. **Lfp:** sainfoins (*Onobrychis* spp.)

Identification: females separated from Damon Blue (*Polyommatus damon*) by faint uns marginal marks and from both Damon Blue and Spanish Furry Blue (*P. fulgens*), by their dull, creamy-brown ups wing fringes. Visibly inseparable from *P. fabressei* and and *P. violetae*. No apparent distributional overlap between the three species.

Notes: pale stripe on unhw may be well developed, poorly developed or entirely absent, the latter being the norm in colonies in the East Pyrenees.



male, Bescaran, Lleida, 11.7.15

Polyommatus escheri (Hübner, 1823)

Escher's Blue

| М | Α | Υ | J | U | Ν | J | L | Υ | Α | U | G | S | Е | Р |
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one brood

Habitat: 400-1800m (to 2650m in Sierra Nevada). Dry meadows, scrubby hills and open woodland. Distribution: widespread in N and E of Peninsula. In S and SE: high mts. in Alicante, Albacete, Jaén, Almería, Málaga and Granada). Absent from Portugal, Extremadura and most of NW corner of Spain; absent from SW and C Spain S of Madrid.

Lfp: mainly milk-vetches esp. Montpellier milk-vetch (*Astragalus monspessulanus*), but also *A. sempervirens*. In Sierra Nevada, *A. nevadensis*.

Identification: male similar to Adonis Blue (*Polyommatus bellargus*) in flight, but fw fringes not chequered and hw fringes only partly so. Amanda's Blue (*P. amandus*) larger, with fewer and less distinct orange-red submarginal lunules on uns.



female, Albarracín, Teruel, 24.6.97



male, Albarracín, Teruel, 19.6.11



male f. agenjoi on Ifp, S. Nevada, Granada, 9.7.07



male, Albarracín, Teruel, 19.6.11



female, Martinet, Lleida, 21.7.02

Polyommatus amandus (Schneider, 1792)

Amanda's Blue



one brood



female, La Molina, Girona, 2.8.02



female, below Estana, Lleida, 4.7.01



male, Cava, Lleida, 11.6.04

Habitat: 100-1800m. Flower-rich meadows, often near woodland.

Distribution: most mt. areas, but in Ciudad Real, restricted to Sierra Madrona, and in Granada, to Sierras Nevada, Huetor and La Sagra. In Albacete, only in Sierra de Alcaraz. Absent from most of Galicia, Sierra Morena, SW Spain and Portugal.

Lfp: vetches of *Vicia* genus, esp. tufted vetch (*V. cracca*), but probably also wood vetch (*V. sylvatica*), and in the Comunitat Valenciana, *V. onobrychioides*.

Identification: larger than other similarly marked species; unfw with only a few faint orange submarginal lunules if any; lunules on unhw stronger, but still less prominent than those of Chapman's Blue or Escher's Blue (*Polyommatus thersites* and *P. escheri*) which are likely to be found in the same habitat in many parts of Spain.



2 males in group, Tramacastilla, Teruel, 18.6.10

Polyommatus thersites (Cantener, 1834)

Chapman's Blue

| Α | Р | R | Μ | Α | Υ | J | U | Ν | J | L | Υ | Α | U | G | S | Е | Р |
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usually two broods; possible third at low altitudes

Habitat: 0-1800m. Warm, flowery places with Ifp. Distribution: In Spain most common in north (Palencia to Cataluña) and Sistemas Central and Ibérico; also mountains from Alicante to Málaga. Absent from Asturias, most of Galicia and western Spain from Zamora and Valladolid to Sevilla and Cádiz. Scattered colonies in Portugal, mainly in the Algarve and around Lisbon.

Lfp: sainfoins (Onobrychis spp.).

Identification: like Common Blue (*Polyommatus icarus*); males have a large patch of androconia on fw, clearly visible at certain angles; not present in *P. icarus*. Cell on unfw in both sexes without inner black spot.



female, Bescaran, Lleida, 11.7.06



male, Albarracín, Teruel, 19.6.10



female summer brood, Bellver de Cerdanya, 20.7.01



male, Albarracín, Teruel, 19.6.10



female spring brood, Cava, Lleida, 10.6.04

Polyommatus icarus (Rottemberg, 1775)

Common Blue

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| F | | | М | | | | | | | | | | | | | | | | | | | | | | | |

two or three broods according to season and altitude



male, Martinet, Lleida, 7.7.15



male, Sierra de Andía, Navarra, 6.7.09



male, Prado Negro, Granada, 10.5.09

Habitat: 0-2700m. Flowery places supporting lfps. Distribution: virtually throughout Peninsula. Lfp: various legumes inc. vetches and clovers and particularly bird's-foot trefoil, (Lotus corniculatus).

Identification: like Chapman's Blue (*P. thersites*) but males without androchonial patch on upfw; unfw with black spot in cell (except in f. *icarimus*). Similar to Eros Blue (*P. eros*) but male ups with narrower black margins; the series of orange submarginal lunules on female upfw less developed in *P. eros*. Extent of blue on female ups variable; uns ground colour pale brown.

In high mts. of SE Spain (e.g. La Sagra), f. *abdon* opposite: both sexes small; males with strong violet hue.

Notes: morphologically inseparable from the cryptic species *P. celina*. There are certain markings on the wings of *P. celina* males that can give a probable identification, but this needs to be confirmed by DNA examination (see below).

Polyommatus celina (Astaut, 1879) Cryptic Common Blue

Flight period: February to October in a series of broods depending on altitude, location and weather.

Habitat: as for *P. icarus*.

Distribution: currently known to fly in large parts of the southern region of Iberia.

Lfp: as for P. icarus.

Identification: a cryptic species with an external and internal morphology very similar to *P. icarus*. The only way to reliably separate them is by DNA sequencing, but the following features are more indicative of *P. celina* than of *P. icarus*: a slightly broader dark margin on the male upfw, and a series of black marginal spots on the uphw, which are generally absent in *P. icarus*.

The male on the left is probably *P. celina*, while all of the others are likely to be *P. icarus*. *P. celina* is also referred to in the literature as the Spanish, Southern or African Common Blue.



male P. icarus ssp. abdon, La Sagra (1900m), Granada, 5.7.07



female, Sierra de Ándia, Navarra, 20.8.08



female, Montes Obarenes, Burgos, 15.8.08

Polyommatus eros (Ochsenheimer, 1808)

Eros Blue





male, Tossa d'Alp, Girona, 4.8.02

Habitat: 1500-2500m. High rocky grasslands on limestone, with thin soils and abundant lfp.

Distribution: high Pyrenees from Navarra to Girona; most common in Huesca.

Lfp: Oxytropis spp. esp. yellow milk-vetch (Oxytropis campestris).

Identification: male very similar to Common Blue (Polyommatus icarus) but ups with wider black wing margins and a more cyan shade of blue, which shines silvery when seen at certain angles to the sun. Female with dusting of blue scales, esp. near base of wings; like some female Common Blues, but upfw submarginal lunules rarely well developed.



female, Tossa d'Alp, Girona, 4.8.02



habitat, Tossa d'Alp, Girona, 4.8.02



male, Tossa d'Alp, Girona, 4.8.02



female, Tossa d'Alp, Girona, 4.8.02

Polyommatus dorylas (Denis and Schiffermüller 1775)

Turquoise Blue

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two broods at low altitudes; one at high altitude.

Habitat: 600-2300m (occasionally lower). Warm sunny spots on base rich soils, with grasses, flowers and usually some scrub.

Distribution: Cantabrian Mts. through Montes Vascos, Pyrenees and pre-Pyrenees into Cataluña; also Sistema Ibérico and Sistema Central. In Galicia, only near border with Castilla y Léon. Not recorded from Portugal.

Lfp: mainly kidney vetch (Anthyllis vulneraria).

Identification: uns grey/light brown, without black edging to orange submarginal lunules. Female ups like Mother-of-Pearl Blue (*P. nivescens*) but usually with some basal blue scaling (sometimes extensive) and with less well developed upfw orange lunules.



female, Lezaun, Navarra, 20.8.08



male, Albarracin, Teruel, 12.8.06



female, Lezaun, Navarra, 20.8.08



male, Tossa d'Alp, Girona, 4.8.02



female, Velilla del Rio Carrión, Palencia, 29.6.09

Polyommatus golgus (Hübner, 1813)

Nevada Blue



one brood



habitat, Lomo de Veleta, Sierra Nevada, 2.7.07



male, Sierra Nevada, Granada, 8.7.07



female, Sierra Nevada, Granada, 9.7.07

P. golgus golgus (pictured on this page).

Habitat: 2100-3000m. Exposed slopes with slaty carboniferous schists and sparse vegetation.

Distribution: highest peaks of Sierra Nevada.

Lfp: Anthyllis vulneraria pseudoarundana.

Identification: lack of strong black edging to unhw submarginal lunules separates *P. golgus* from the Common Blue (*P. icarus*) and Escher's Blue (*P. echeri*). Females may be mistaken for Mother-of-Pearl Blue (*P. nivescens*), but are smaller; ups orange lunules poorly developed, usually absent on upfw. No confirmed records of similar Turquoise Blue (*P. dorylas*) in the region.

P. golgus sagratox (pictured on opposite page).

Habitat: 1800-2000m. Stony, rocky, limestone slopes with cushion vegetation. Occasionally at lower altitudes in pinewood clearings.

Distribution: provinces of Granada and Jaén (sierras La Sagra, Seca, Cazorla and Guillamona).

Lfp: kidney vetch - A. vulneraria mircrocephala.

Identification: male like ssp. *golgus* but slightly brighter. Female ups brown with orange submarginal lunules usually on all wings; like *P. nivescens* which flies in same habitat, but smaller, and often with extensive basal blue scaling on ups.

Notes: evidence in support of specific status for taxon *sagratox* appears to be growing.



pair (male right), Sierra Nevada, Granada, 3.7.07



habitat, La Sagra, Granada, 20.7.17



male ssp. sagratox, La Sagra, Granada, 5.7.07



female ssp. sagratox, La Sagra, Granada, 5.7.07

Polyommatus nivescens (Keferstein, 1851)

Mother-of-Pearl Blue

| М | Α | Υ | J | U | Ν | J | L | Υ | Α | U | G | S | Е | Ρ |
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one or two broods according to altitude & locality



female, Alfacar, Granada, 6.7.07

Habitat: 200-2700m, but usually 900-1800m. Hot, dry areas of limestone, with scrub and grass; dry stream beds.

Distribution: eastern half of Peninsula; main populations in mts. of Andalucia, Murcia and Alicante, and S Sistema Ibérico, west to Madrid. Low density in Pyrenees, at relatively low altitudes. Scattered records from Palencia, Girona, Barcelona and Tarragona.

Lfp: kidney vetch (Anthyllis vulneraria).

Identification: female difficult to separate from Turquoise Blue (*Polyommatus dorylas*) but ups with no basal blue scaling and upfw usually with better developed orange submarginal lunules.



male, La Sagra, Granada, 5.7.07



male, Valdemeca, Cuenca, 9.8.06



female, Sierra Nevada, Granada, 9.7.07



male, Albarracín, Teruel, 18.6.10

Polyommatus daphnis (Denis and Schiffermüller, 1775)

Meleager's Blue

| М | Α | Υ | J | U | Z | J | L | Υ | Α | U | Ŋ | S | Е | Ρ |
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one brood

Habitat: 200-1300m. Sheltered meadows and patches of dry scrub with abundant nectar and presence of larval foodplant.

Distribution: mts. in northern provinces of Burgos, La Rioja, Huesca, Lleida and Barcelona; central mts. of Guadalajara and Teruel; also colonies in Madrid, Cuenca, Zaragoza, Castellón and Tarragona.

Lfp: Astragalus monspessulanus.

Identification: uns like Chalk-hill Blue (*L. coridon*), without orange/red lunules, and with scalloped hw. Female ups distinctive; brown form (f. steeveni) reportedly common in many parts of range, but possibly absent from East Pyrenees.



female, Martinet, Lleida, 21.7.02



female + male, Fredes, Castellón, 24.7.13



female, Martinet, Lleida, 27.7.98

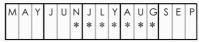


male, Martinet, Lleida, 6.7.06



female f. steeveni, Fredes, Castellón, 24.7.13

Lysandra coridon (Poda, 1761) Chalk-hill Blue



one brood



male, Bescaran, Lleida, 11.7.06



male, above Arres, Lleida, 1.7.06



male ssp. asturiensis, Riaño, León, 10.7.00

Habitat: 400-2150m (mainly below 1800m). Flowery meadows and scrubby hillsides, on baserich soils (usually on limestone).

Distribution: flies in a northern band from Asturias through hilly and mountain regions to Cataluña; also some colonies in SE Lugo and W León.

Lfp: Hippocrepis spp.

Identification: male of nominate form has paleblue ups, sometimes with faint orange submarginal spots on hw; ssp. *asturiensis* ups usually bright, shining, light blue.

Male Provence Chalk-hill Blue (*L. hispana*) usually duller, and of a greyer or sometimes greener blue. Male Spanish Chalk-hill Blue (*L. albicans*), is paler.

Separating females of the above species is difficult as all are rather variable. Where only one species is flying, identification can best be made on the basis of any males present, but *L. coridon asturiensis* and *L. hispana* often overlap and there are habitats between Huesca and the E Cantabrian Mts. where all three species fly. In this situation any females with blue on ups belong to *L. coridon*; those without blue scaling and with faint white discal/post discal marks on uphw are likely to be *L. albicans*; females with strong, bright-red lunules on ups and uns are likely to belong to *L. hispana*. See also *L. hispana* and *L. albicans*.

Notes: nominate form flies locally in the Pyrenees, usually above 1200m; elsewhere ssp. *asturiensis*. Sky-blue females (f. *syngraphoides*) sometimes occur; common in some colonies but usually rare.



female, Bescaran, Lleida, 4.8.06



female f. syngraphoides, Montes Obarenes, Burgos, 15.8.08



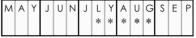
male ssp. asturiensis, Montes Obarenes, Burgos, 15.8.08



female ssp. *asturiensis*, Valle de Roncal, Navarra, 21.8.08

Lysandra caelestissima (Verity, 1921)

Azure Chalk-hill Blue



one brood



female, Tragacete, Cuenca, 23.7.17

Habitat: 1050-1800m (mainly above 1200m). Mostly grassy rides and clearings in pinewoods. **Distribution**: southern areas of Sistema Ibérico, in

Teruel, Cuenca and Guadalajara. **Lfp**: *Hippocrepis comosa* and *H. glauca*.

Identification: in lowest areas, flies with Spanish Chalk-hill Blue (*L. albicans arragonensis*); females difficult to separate; *L. albicans* often with small white marks in uphw postdiscal region.

Notes: once considered a ssp. of Chalk-hill Blue (*L. coridon*). Occasionally silvery sky blue males seen, more like *L. coridon*; these are known as f. *caerulescens* and are thought to be hybrids of *L. caelestissima* x *L. a. arragonensis*.



female, Tragacete, Cuenca, 26.7.17



habitat above Frías de Albarracín, Teruel, 27.7.04



male, Tragacete, Cuenca, 24.7.17



male, Valdecabras, Teruel, 9.8.06

Lysandra hispana (Herrich-Schäffer, 1852)

Provence Chalk-hill Blue

| Α | Р | R | Μ | Α | Υ | J | U | Z | J | L | Υ | Α | U | G | S | Е | Р |
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two broods

Habitat: 50-1200m. Hot, dry limestone areas with tall grasses and flowers, generally sheltered by trees or patchy scrub; often in sheltered valleys.

Distribution: Widespread in Cataluña, spreading SW along Mediterranean hinterland to Alicante, and NW along pre-Pyrenees and low areas of Pyrenees, through Huesca (inc. Sierra de St. Juan de la Peña) to Cantabrian Mts. Known also to fly in an area around the Sierra de Cazorla and Sierra de Alcaraz in S Spain. Because of similarity with Spanish Chalk-hill Blue (*L. albicans*), exact distribution in N and SE Spain unclear.

Lfp: Hippocrepis spp.

Identification: male ups usually a dull, greyish or greenish blue, unlike the bright, light blue of the Chalk-hill Blue, *L. coridon asturiensis*, which flies with it in many northern parts of its range. Often difficult to separate from *L. albicans arragonensis* which also flies with it in parts of northern Spain. The two broods of *L. hispana* emerge either side of the main flight period for *L. albicans*; rarely any overlap with the spring brood, and when they do overlap in the second brood, *L. albicans* is likely to be the more worn of the two species.

Separating females of all three species is a problem; appearance alone may not give a clear identification as none have specific diagnostic features; however, condition of butterflies will help separate *L. hispana* from *L. albicans*, and relatively large, bright reddish submarginal lunules on unhw in *L. hispana* help to separate it from both *coridon* and *albicans*.



pair 2nd brood, Moiá, Barcelona, 31.8.16



female 1st brood, Ainsa, Huesca, 15.6.10



male 1st brood, Manresa, Barcelona, 10.6.10



male 2nd brood, Moiá, Barcelona, 31.8.16

Lysandra albicans (Herrich-Schäffer, 1851)

Spanish Chalk-hill Blue



one brood



male f. albicans, Sierra de Baza, Granada, 21.7.17

Habitat: 400-2000m (usually below 1800m). Hot, dry places with sparse grasses, flowers and usually some small trees or bushes; often near the edges of cereal crops where flowers abound.

Distribution: widespread through much of Spain where there are outcrops of limestone; absent from most, if not all of Cataluña, as well as Galicia, Huelva, Córdoba, Extremadura and Portugal.

Lfp: Hippocrepis spp. esp. H. comosa.

Identification: three distinct forms named: f. *albicans* - southern Spain: large. Male ups very pale blue-grey, tending towards white; upfw borders variable, pale to dark grey, rarely extensive; uns markings often reduced.



male f. albicans, Sierra Arana, Granada, 25.6.07



male f. albicans, Sierra Arana, Granada, 29.6.07



male f. arragonensis, Albarracín, Teruel, 3.8.13



male arragonensis, Valle de Hecho, Huesca, 14.8.08

f. bolivari - Madrid and Toledo: male ups almost white; upfw borders very pale, almost non existent. Females distinct, with large amount of white on ups. f. arragonensis - E and N Spain: male ups variable, from light silvery-blue to pale blue-grey; upfw borders variable in width; pale grey to black. Forms very much like f. albicans occur in some populations of arragonensis; this is particularly so in northern provinces, e.g. Huesca.

Most males, regardless of locality, tend to appear almost white in flight.

In northern Spain, confusion is possible between f. arragonensis and Provence Chalk-hill Blue (Lysandra hispana). Male ups of arragonensis usually paler; females more often have indistinct, pale markings in discal/postdical areas of uphw. Submarginal, reddish spots on ups and uns usually larger and brighter in L. hispana.

L. a. arragonensis emerges long after first brood of L. hispana, but often only shortly before the second brood; usually when the two species are flying together L. hispana is the fresher and bluer of the two.

Identification of females is even more difficult in areas where *L. coridon asturiensis* also flies.

Notes: emergence from mid-June in south; mid-July in north and east.



pair arragonensis, Albarracin, Teruel, 28.7.04



female f. arragonensis, Albarracín, Teruel, 28.7.04



female f. albicans, S. de Huetor, Granada, 22.7.17



female f. arragonensis, Albarracín, Teruel, 28.7.04

Lysandra bellargus (Denis and Schiffermüller, 1775)

Adonis Blue

| Α | Р | R | М | Α | Υ | J | U | Ν | J | L | Υ | Α | U | G | S | Е | Р |
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usually two broods; three in some low-lying sites in Cataluña



habitat, Ripoll, Gerona, 30.8.16

Habitat: 0-2000m. Hot, sheltered areas with thin base-rich soils, patchy grass and scrub.

Distribution: recorded in most of Portugal and all Spanish provinces except Guipúzcoa.

Lfp: *Hippocrepis* spp. esp. horseshoe vetch (*H. comosa*). Also *H. commutata*.

Identification: males similiar to Escher's Blue (*Polyommatus escheri*) but white fringes strongly chequered on all wings; easily mistaken in flight. Females sometimes difficult to separate from Chalkhill Blue (*L. coridon*); ups lunules well developed, often forming an orange submarginal band. Amount of blue scaling on female ups varies, sometimes entirely replacing the brown (f. *ceromus*).



female, Alp, Girona, 21.6.03



female, Ripoll, Gerona, 30.8.16



male, Ripoll, Girona, 30.8.16



pair (male left), Alcoi, Alicante, 3.5.03



habitat, Sanguesa, Huesca, 19.8.08



male, Sanguesa, Huesca, 19.8.08



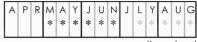
male, Alharma de Granada, Granada, 4.5.07

family: RIODINIDAE



habitat, Valle de Pineta, Huesca, 15.6.10

Hamearis lucina (Linnaeus, 1758) Duke of Burgundy



usually one brood

Habitat: 50-1900m (generally below 1600m). Grassy woodland clearings; meadows or scrub usually bordering woods.

Distribution: northern half of Peninsula in mts. from Cataluña to far N of Portugal, as well as Sistemas Central and Ibérico and SW Salamanca.

Lfp: *Primula* spp. inc. primrose (*Primula vulgaris*) and cowslip (*Primula veris*).

Notes: male and female uns similar; males walk on four legs (first pair greatly reduced); female with six walking legs. Males are strongly territorial. Exceptionally large butterflies sometimes seen. Possible partial second brood in some areas in favourable seasons.



female, Alp, Girona, 19.5.05



habitat near Alp, Girona, 21.5.05



female, Alp, Girona, 19.5.05



male, Valle de Pineta, Huesca, 15.6.10



male, Alp, Girona, 10.6.04

family: NYMPHALIDAE



male Lesser Purple Emperors and Dark-green Fritillaries near Villec, Lleida, 18.7.02

Libythea celtis (Laicharting, 1782)

Nettle-tree Butterfly

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one brood; possible partial second in Aug/Sept

Habitat: 0-1050m (occasionally much higher as a vagrant). Hot sheltered spots often near woodland; urban areas where nettle trees have been planted.

Distribution: scattered records from much of the Peninsula though apparently absent in North from Galicia through to La Rioja and Navarra. Greatest concentrations of records are from Cataluña across to N Aragon, and in the NE part of Cáceres.

Lfp: southern nettle tree (Celtis australis).

Identification: distinctive. Female similar to male but unhw usually more light brown than grey. **Notes:** in summer males attracted to mineral rich patches of damp ground.



male, Bescaran, Lleida, 1.7.18



habitat, Moia, Barcelona, 4.7.18



male, Hostal de la Muga, Girona, 3.7.05



(female), Moia, Barcelona, 4.7.18



male, Víllec, Lleida, 22.6.03

Charaxes jasius (Linnaeus, 1767)

Two-tailed Pasha

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generally 2 broods, but 3-4 in the Costa Granadina



male, Taradell, Barcelona, 27.8.16

Habitat: 0-1200m, occ. higher as a vagrant. Mainly scrubby hills with abundant lfps.

Distribution: most of mediterranean coastal region except Almería, (scarce in Málaga province); extending inland in Cataluña towards E Pyrenees; also from Cádiz to lower slopes of Sierra de Gredos. A small number of colonies S and W of Madrid. Most of Portugal but rare in NE.

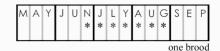
Lfp: mainly Strawberry Tree (Arbutus unedo), but Cherimoya (Anona cherimola) in Costa Granadina. Also reported: Osyris lanceolata, Brachychiton populneus and Vaccinium corymbosom.

Notes: Female larger than male; upper tails almost as long as lower ones. Both sexes frequent orchards to feed on over-ripe fruit, especially figs in late summer, where fruit is left left to split and is starting to ferment. Males engage in hill-topping and are drawn to decaying flesh and mammalian faeces. Usually scarce in first brood, due to poor survival of overwintering larvae.



male, Taradell, Barcelona, 31.8.16

Apatura iris (Linnaeus, 1758) Purple Emperor



Habitat: 50m to at least 1500m. Mixed or deciduous woodland, generally in warm sheltered valleys.

Distribution: a northern species: Galicia, Asturias, N León, Cantabria, Álava, Navarra, Guipúzcoa, Burgos, La Rioja, NW Huesca, N Lleida (Val d'Aran and Pallars-Sobirà), Girona, S. de Guadarrama and N Portugal.

Lfp: mainly goat willow (*Salix caprea*) and grey sallow (*S. cinerea*); also white willow (*S. alba*), black poplar (*Populus nigra*) and aspen (*P. tremulae*) reported.

Identification: readily separated from the Lesser Purple Emperor (*Apatura ilia*) by a tooth-shaped projection in white hw band (ups and uns), and no orange-circled black eye-spot on upfw. Female larger than male and without blue/purple iridescence; fw less angular and white markings usually bolder.

Notes: males frequently descend to the ground in search of mineral salts; females more elusive.



male, Val de Toran, Val d'Aran, Lleida, 4.7.06



male, Val de Joeu, Val d'Aran, Lleida, 4.7.06

Apatura ilia (Denis and Schiffermüller, 1775)

Lesser Purple Emperor

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one brood; partial second at low altitudes



male, Vall d'Ingla, Lleida, 9.7.06

Habitat: 50m to at least 1600m. Mixed and deciduous woodland, usually in sheltered valleys.

Distribution: a northern species, found mainly in three distinct areas: from coastal regions of Girona and Barcelona, north to Pyrenees and across to NE Huesca; Álava, Guipúzcoa, Navarra and Burgos; NW part of Peninsula, with scattered colonies in Asturias, León, Zamora, Galicia and NE Portugal.

Lfp: include goat willow (Salix caprea), grey sallow (S. cinerea), white and black poplar (Populus alba and nigra) and aspen (P. tremulae).

Identification: smaller than *Apatura iris* and without tooth-shaped mark on hw.

Notes: males drawn to wet soil, decaying animal matter and mammalian faeces for mineral salts. Both sexes drawn to sapruns and over-ripe fruit.



male, Martinet, Lleida, 27.7.98

The butterfly has two forms: a dark form with white markings, found in all populations, and an orange-brown form with yellow markings, called f. *clytie*. In flight the males of this form display flashes of pink as their wings catch the sunlight at certain angles. The proportion of the *clytie* form in any population varies: it accounts for up to 40% in parts of the East Pyrenees, while in the Monseny Mts. of Girona and Barcelona it is much rarer. A well marked form called f. *barcina* has broad white discal bands and occurs frequently in parts of Cataluña.



female, Víllec, Lleida, 5.7.03



female f. clytie (slight aberration), Villec, Lleida 23.7.98



male f. barcina, Sant Sadurni de Osomort, Barcelona, 28.6.05





male f. clytie, Son, Lleida, 6.7.15



male f. clytie, Son, Lleida, 6.7.15

Limenitis camilla (Linnaeus, 1764) White Admiral

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one brood or two broods according to location



male, Cava, Lleida, 23.6.03

Habitat: 0-1500m. Mainly clearings, tracks and rides in mixed or deciduous woodland.

Distribution: found in a northern band from Cataluña to Galicia and NW Portugal, stretching south to La Rioja. Isolated colonies also found in Teruel.

Lfp: honeysuckle (Lonicera spp.).

Identification: ups lacking iridescent sheen of Southern White Admiral (*Limenitis reducta*); without clear white spot in cell of upfw; uns less red than *L. reducta*; base of unhw more mottled; unhw with double row of submarginal black spots (single row in *L. reducta*).

Notes: in low lying areas of Cataluña usually at least a partial second brood.



male, Sant Sadurni de Osomort, Barcelona, 2.9.16



male, Víllec, Lleida, 22.6.03



female, Sant Sadurni de Osomort, Barcelona, 2.9.16

Limenitis reducta (Staudinger, 1901)

Southern White Admiral

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two or three broods according to locality

Habitat: 0-2000m. Flies in habitats similar to those of the White Admiral (*L. camilla*), but also in more open scrubby areas with *Lonicera implexa*.

Distribution: more widespread than *L. camilla*; most of northern half of Peninsula; isolated colonies in Jaén, Granada and Albacete (sierras Madrona, Segura, Baza, Cazorla, La Sagra and Rio Mundo Mts.).

Lfp: various species of honeysuckle (Lonicera).

Identification: ups with iridescent blue sheen; large white spot in cell of upfw; uns with large amount of rusty-red colouring; unhw with single row of submarginal black spots (double row in *L. camilla*); base of unhw nearly white and unmottled.



male, Cava, Lleida, 18.7.01



female, Martinet, Lleida, 2.8.06



male, Cava, Lleida, 23.6.03



female, Alp, Girona, 4.7.06



male, Vall d'Ingla, Lleida, 9.7.06

Nymphalis antiopa (Linnaeus, 1758)

Camberwell Beauty

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one brood

Habitat: 0-2000m. In spring and early summer, tree-lined riversides and clearings in mature wooded valleys where there is an abundance of lfp. Towards late summer butterflies often seek higher, colder, hibernation sites.

Distribution: northern half of Portugal; northern Spain from Galicia through Asturias and Cantabria to País Vasco and La Rioja; Pyrenees from Navarra to Cataluña; much of Girona and Barcelona; Sierra de Gredos and Sierra de Guadarrama in Sistema Central.



male, Víllec, Lleida, 6.7.06

Lfp: include *Salix atrocinerea*, white willow (*S. alba*), goat willow (*S. caprea*), black poplar (*Populus nigra*), and aspen (*P. tremula*).

Notes: both sexes attracted to sap running from damaged trees; also fond of over-ripe and partly fermenting fruit in late summer.

Butterflies emerge in June or early July and enter hibernation in August/September, flying again from March until May or even as late as early June.

Sexes alike, although female often larger than male.

Yellow borders turn white during hibernation. Butterflies often more evident after hibernation, when males set up territories, perching on the ground or on low vegetation, where they wait to intercept passing females.



male, Son, Lleida, 7.7.06

Nymphalis polychloros (Linnaeus, 1758)

Large Tortoiseshell



one brood

Habitat: 0-2000m. Mainly open, mixed/deciduous woodland or tree-lined lanes, tracks or river-banks.

Distribution: present over much of the Peninsula; rare or absent in many eastern areas especially Tarragona, Castellón and Murcia; scarce in NW corner of Spain. Scattered colonies in S Portugal; more common in N.

Lfp: mainly elms (*Ulmus* spp.), but also include nettle-tree (*Celtis australis*), cherry (*Prunus avium*), *Salix atrocineria*, hawthorn (*Crataegus monogyna*), black poplar (*Populus nigra*) and aspen (*P. tremulae*).

Identification: male and female very similar; male usually slightly smaller and a little brighter.

Notes: both males and females seen drinking from fresh puddles and seepage from banks and irrigation channels. Both sexes often seen at sap runs and are attracted to over-ripe fruit. Enters hibernation between August and October, emerging the following year on the first warm days of spring.



male, Martinet, Lleida, 27.7.98



female, Víllec, Lleida, 17.6.03

Vanessa atalanta (Linnaeus, 1758)

Red Admiral



polyvoltine



male, Víllec, Lleida, 5.8.02

Habitat: 0-2000m. Often in places with dappled sunlight, e.g. lanes and woodland edges, rides and clearings.

Distribution: throughout the Peninsula.

Lfp: common stinging nettle (*Urtica dioica*) and Pellitory-of-the-wall (*Parietaria officinalis*).

Notes: strongly attracted to over-ripe and rotting fruit and sap runs for sugars as well as mammalian faeces for mineral salts.



male, Val de Varradós, Lleida, 9.6.04

Vanessa virginiensis (Drury 1773)

American Painted Lady

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polyvoltine

Habitat: 0-900m (migrants reported up to 1600m). Places with lots of flowers.

Distribution: local, probable transient populations in Extremadura and Portugal (especially atlantic coastal areas). Elsewhere as a sporadic migrant.

Lfp: mainly Gnaphalium luteo-album.

Identification: like Painted Lady (*Vanessa cardui*) but averagely smaller and ups without pink flush; small white spot in s2 of upfw; uphw postdiscal spots in s2 and s5 larger than others and with blue pupils. Unhw with 2 very large postdiscal ocelli in s2 and s5, set in a dark and well defined postdiscal band. Male and female similar.



Arizona, U.S.A., April 2015

Matt Rowlings

Vanessa cardui (Linnaeus 1758)

Painted Lady

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polyvoltine

Habitat: 0-3000m. Virtually anywhere where there are sources of nectar.

Distribution: throughout the Peninsula. Degree of abundance depends on breeding success in N Africa.

Lfp: a wide range of plants, especially thistles (Cirsium and Carduus spp.).



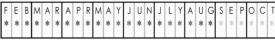
female, below Estana, Lleida, 17.6.03



male, Puerto de Azaceta, Álava, 5.7.09

Aglais io (Linnaeus, 1758)

Peacock



usually two broods; three reported in Cataluña



male, Cava, Lleida, 14.7.01

Habitat: 0-2500m. Sunny sheltered slopes, lanes, open deciduous or mixed woodland as well as fringes of agricultural land.

Distribution: common in northern half of the Peninsula; scattered colonies in some southern mt. ranges, e.g. Sierra de Espuña (Murcia), Sierra Nevada (Granada) and Sierra de Aguas (Málaga).

Lfp: common stinging nettle (*Urtica dioica*) and occasionally hop (*Humulus lupulus*).

Notes: butterflies pass the winter in hibernation, re-appearing in the first warm days of spring. Offspring of these butterflies emerge June to August; sometimes an early emergence will give rise to a second brood in late summer.

Female like male but a little larger.



male, Cava, Lleida, 14.7.01

Aglais urticae (Linnaeus, 1758)

Small Tortoiseshell

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mainly two broods; a third in some years in parts of Cataluña

Habitat: 0-3400m. In spring, usually seen close to nettle beds (*Urtica*). In late summer, before hibernation, they gather in places where there are rich sources of nectar.

Distribution: most widespread in the northern half of the Peninsula, though scattered colonies in parts of Andalucia; rare in W Andalucia, Badajoz and S Portugal.

Lfp: common stinging nettle (Urtica dioica).

Identification: male and female similar.

Notes: often most abundant at high altitudes. On the nettles in the foreground of the picture below there were four groups of caterpillars feeding, all in very different stages of development.



female, Tossa d'Alp, Girona, 10.7.03



Nettles at ~2400m on Tossa d'Alp, Girona, 10.7.03



male, Bellver de Cerdanya, Lleida, 17.5.02



egg-laying at ~2400m on La Bonaigua, Lleida, 4.7.19



female, Porte Puymorens, P.O., 30.5.99

Polygonia c-album (Linnaeus, 1758)

Comma

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usually two broods; a third reported in Cataluña



male f. hutchinsoni, Sant Sadurni de Osomort, Gerona, 2.9.16

Habitat: 0-2000m. Mainly edges, rides and clearings of mixed/deciduous woodland, but also lanes, neglected areas of agricultural land and urban waste ground.

Distribution: widespread; most frequent in the northern half of the Penninsula. Not recorded in extreme SW (Cádiz, southern Sevilla and Huelva).

Lfp: mainly elm trees and nettles, inc. *Ulmas mino*r, wych elm (*U. glabra*), common stinging nettle (*Urtica dioica*) and more rarely hop (*Humulus lupulus*).



male dark form, Bellver de Cerdanya, 7.8.02



male f. hutchinsoni, Víllec, Lleida, 22.6.03



female f. hutchinsoni, La Molina, Girona, 18.7.01



male dark form, Víllec, Lleida, 18.7.02

Araschnia levana (Linnaeus 1758)

Map Butterfly

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3 broods in Cataluña (m3 - early 5, 6 - 7 and 8 - 9. Possibly two broods elsewhere

Habitat: 0-1750m or higher. Tracks and clearings in open deciduous woodland; tree-lined river banks and dry clearings in willow and sallow carr; places with abundance of larval foodplant.

Distribution: two main areas: one including much of inland Girona, parts of Barcelona and some sites in N Lleida, and a second, including Navarra, Álava and Guipúzcoa; also a few sites in between, in N Huesca. **Lfp:** common stinging nettle (*Urtica dioica*).

Identification: male & female similar. In flight, spring brood butterflies look a little like small fritillaries; summer brood butterflies are more like small Southern White Admirals (*Limenitis reducta*).



female f. prorsa, Porte Puymorens, P.O., 17.7.03



female f. levana, Puigcerda, Girona, 16.5.02



male f. prorsa, Víllec, Lleida, 12.7.01



female f. levana, Puigcerda, Girona, 16.5.02



female f. prorsa, Martinet, Lleida, 3.8.02

Argynnis pandora (Denis and Schiffermüller, 1775)

Cardinal



one brood with a prolonged emergence



habitat, Arroyo Cerezo, Rincón de Ademus, 26.7.13

Habitat: 0-2000m (up to 2500m in Sierra Nevada). Open spaces, often in or near woodland, invariably close to a good supply of robust nectar-rich plants, especially large thistles.

Distribution: widespread, often local. Scarce in Galicia, Almería, Huelva, Sevilla and much of S Portugal.

Lfp: violets and pansies (*Viola* spp.). *Valerianella coronata* also cited (Madrid).



female, Sierra de Los Filabres, Almería, 27.6.07



male, Sierra de la Demanda, Burgos, 18.6.94



female, Arroyo Cerezo, Rincón de Ademus, 26.7.13



male, Collados de La Sagra, Granada, 20.7.17

Notes: relatively fresh butterflies seen between 1300m and 1400m in Sierra Alfacar, Granada, in both late June and early September suggests the possibility of a second brood in this area in certain years.

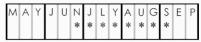


female, Griegos, Teruel, 10.8.06



male, La Garganta, Cáceres, 26.6.09

Argynnis paphia (Linnaeus, 1758) Silver-washed Fritillary



one brood



male, Sant Sadurní de Osomort, Barcelona, 27.6.05

Habitat: 50-1800m. Open spaces in deciduous and mixed woodland; margins of woods; treelined rural tracks.

Distribution: most of northern and central mountains; rarer in mts. of S Spain; absent from N and W Andalucia and from most of southern Portugal.

Lfp: violets and pansies (Viola spp.).



male, Vall d'Ingla, Lleida, 2.8.06



habitat, Montes Obarenes, Burgos, 13.8.08



female, Puerto de Azaceta, Álava, 5.7.09



male, Alp, Girona, 12.7.15

Notes: females occur in two forms - the normal brown form and a second form, f. *valezina*, which only occurs very sporadically. In the *valezina* form the ups dark patches and spots are more brown than black, and a dull grey or brown suffusion covers the whole of each wing, often giving beautiful green or blue reflections, varying in shade and intensity according to the freshness of the butterfly and the angle and strength of light reflected from the wing.



female, Cava, Lleida, 18.7.01



female f. valezina, Montes Obarenes, Burgos, 13.8.08

Fabriciana adippe (Denis and Schiffermüller, 1775)

High Brown Fritillary

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one brood



female f. chlorodippe, Colomardi, Teruel, 26.7.04

Habitat: 0-2000m. Open spaces in woods; dry meadows with scrub, near margins of woods.

Distribution: mountains of N and C Spain, N Portugal and some sierras in Granada, Jaén and Albacete. Rare on plateau of León-Castilla. **Lfp**: violets and pansies (*Viola* spp.).

Identification: large silvery spots on unhw separate most forms of this species from the Niobe Fritillary (A. niobe f. eris) which is found in the region, but A. adippe f. cleodoxa, found in the Pyrenees alongside the nominate form, lacks these silvery spots and is similar to f. eris, though it doesn't have the black outlining of veins and the strong green suffusion on the unhw costa seen in the Niobe Fritillary.



female, Víllec, Lleida, 10.7.06



male f. cleodippe, Val de Toran, Lleida, 30.6.06



female f. chlorodippe, S. Alfacar, Granada, 6.7.07



male f. cleodoxa, Val de Toran, Lleida, 30.6.06

Notes: 3 forms occur in the Pyrenees, the nominate form, with a full set of silvery-white uns spots and lunules, f. *cleodippe* (an intermediate form), and f. *cleodoxa*, with almost no white uns markings at all. All 3 forms become increasingly less common south of the Pyrenees, where f. *chlorodippe*, with green suffusion on the unhw, becomes the predominant form.

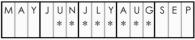


male, Querforadat, Lleida, 3.7.01



female, above La Molina, Girona, 4.8.02

Fabriciana niobe (Linnaeus, 1758) Niobe Fritillary



one brood



male - slight aberration, Sierra Nevada, 9.7.07

Habitat: usually 500-2000m (up to 2500m in Sierra Nevada). Places with lots of flowers, particularly rides, clearings and margins of woods, but also high mt. slopes.

Distribution: scattered through northern and central mts.; absent from most of Spain south of Sistema Central and Sistema Ibérico except for some high sierras in Granada, Jaén and Albacete; in Portugal, almost entirely restricted to north; rare or absent from most of Galicia as well as east coast areas of Spain.

Lfp: violets and pansies (Viola spp.).



male, Gorges del Segre, P,O., 21.67.04



male, Sierra Nevada, Granada, 9.7.07



(female) Pto. de La Ragua, Granada, 30.6.07



male, Velilla del Rio Carrión, Palencia, 29.6.09

Identification: form found on Iberian Peninsula is f. *eris*, which lacks the unhw large silvery spots and lunules found in the nominate form. Similar to High Brown Fritillary - *A. adippe* f. *cleodoxa* which flies in the Pyrenees, but with black outlining of veins on unhw and strong green suffusion on the unhw costa; male upfw sex-brands (androconial patches) when present are weak, unlike the two strong brands seen in *A. adippe*.

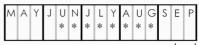


habitat between 2200 and 2300m, Sierra Nevada, Granada, 9.7.07



female, above Font Romeu, Pyrénées Orientales, 24.7.01

Speyeria aglaja (Linnaeus, 1758) Dark-green Fritillary



one brood



male, Puerto de Pandetrave, León, 1.7.09



female, Val de Toran, Lleida, 30.6.06



male, Fredes, Castellón, 24.7.13

Habitat: 0-2000m. Meadows, scrubby hillsides, rides, clearings and margins of deciduous woods.

Distribution: all of Spain except SW (Ciudad Real south to Málaga and west to Huelva and Badajoz), and coastal band from Almería to Valencia. Absent from south and most of central Portugal; rare in N Portugal.

Lfp: violets and pansies (Viola spp.).



habitat, Fredes, Castellón, 24.7.13



male, Querforadat, Lleida, 3.7.01

Identification: ups like High Brown Fritillary (*A. adippe*) and Niobe Fritillary (*A. niobe*); males with three thin bands of androconia on fws - *A. adippe* has two thick prominent bands. *A. niobe* smaller. Unhw distinctive, with greenish suffusion and large silvery-white spots; lacking the reddish brown postdiscal spots found on *A. adippe* and *A. niobe*.



male, Víllec, Lleida, 22.6.03



female, Martinet, Lleida, 20.7.02

Issoria lathonia (Linnaeus, 1758)

Queen of Spain Fritillary

| MAR | APF | MA | ΥJ | UN | JL | Υ | Α | U | G | S | Е | Р | 0 | С | T |
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polyvoltine



female, La Molina, Girona, 19.5.02

Habitat: 0-2400+m. Virtually any flower-rich scrub or grassland, especially where larval foodplants grow.

Distribution: throughout the region. **Lfp**: pansies and violets (*Viola* spp.).

Notes: male and female similar.



male, Estana, Lleida, 23.7.01



hills above La Molina, Girona, 12.6.04



male, La Molina, Girona, 19.5.02



female, Javalambre, Teruel, 27.7.13

Brenthis hecate (Denis and Schiffermüller, 1775)

Twin-spot Fritillary

| Μ | Α | Υ | J | U | Ν | J | L | Υ | Α | U | G | S | Е | Р |
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one brood

Habitat: 200-1500m. Dry, sheltered grassland with lfp and plenty of flowers for nectaring on; also seen close to streams.

Distribution: scattered across Peninsula, mainly in a band that stretches from N León across Burgos, La Rioja, Navarra and Huesca; also Sierra de Albarracín and Sierra de Guadarrama. Isolated colonies in NW Portugal, Extremadura, S and C Andalucia and Cataluña. Absent from NW and SW corners of the Peninsula as well as from eastern mediterranean provinces south of Barcelona.

Lfp: Dropwort (Filipendula vulgaris) and possibly Meadowsweet (F. ulmaria). Dorycnium spp sometimes cited.

Identification: ups very similar to Lesser Marbled Fritillary (*Brenthis ino*): ups post discal spots fairly uniform in size. Unhw with two rows of black spots in postdiscal and submarginal areas.

Female similar to male but usually a little duller and often darker.



habitat, Tragacete, Cuenca, 24.7.17



male, Cistierna, León, 27.6.97



male, Cistierna, León, 27.6.97



female, Tragacete, Cuenca, 24.7.17

Brenthis daphne (Denis and Schiffermüller, 1775)

Marbled Fritillary





male, Gorges del Segre, Pyrénées Orientales, 5.7.05



Habitat: 75-1750mm. Woodland margins and clearings; warm sheltered valleys and hillsides with bramble and flowers.

Distribution: N Spain from Lugo to Cataluña; Sistema Central and Sistema Ibérico; in south, Sierra de Cazorla and Sierra de Segura across to Sierra Alfacar. In Portugal: NE and Sierra de Nogueira.

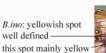
Lfp: Rubus spp.

Identification: like Lesser Marbled Fritillary (Brenthis ino), but larger; dark marginal spots on uphw rather than dark marginal border. Unhw of B. daphne with less clearly defined, isolated yellowish spot at base of cell.



male, Estana, Lleida, 7.7.05











female, Cava, Lleida, 23.6.03



female, Manresa, Barcelona, 23.6.94

Brenthis ino (Rottemberg, 1775) Lesser Marbled Fritillary

| Μ | Α | Υ | J | U * | × × | J * | L * | Y * | Α | U | O | S | Е | Р |
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| | | | | | | | | | | | | one | bro | ood |

Habitat: 300-1800m. Usually damp grassy places with flowers, sheltered by trees.

Distribution: mainly in a northern band from Lugo and Orense to Girona. Apart from colonies in Sierra de Guadarrama and provinces of Teruel and Cuenca, absent from areas south of a line drawn from mid Zamora to Barcelona. In Portugal, only extreme NE.

Lfp: meadowsweet (*Filipendula ulmaria*), great burnet (*Sanguisorba officinalis*), raspberry (*Rubus idaeus*) and possibly others.

Identification: similar to *B. daphne*: smaller; ups black borders unbroken. Yellowish spot at base of cell on unhw clearly defined.

See also Twin-spot Fritillary (B. hecate).



female, Martinet, Lleida, 20.7.02



male, above Arres, Val d'Aran, Lleida, 4.7.06



male, Val de Toran, Lleida, 29.6.18



male, La Uña, León, 9.7.00



female, Martinet, Lleida, 20.7.02

Boloria pales (Denis and Schiffermüller, 1775)

ssp. pyrenesmiscens (Verity, 1932)

Shepherd's Fritillary

| MA | Υ . | J | U | Z | J | L | Υ | Α | U | G | S | Е | Р |
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one brood



male, Ulldeter, Girona, 2.7.05

Habitat: 1200-2500m. Grassy, rock strewn areas where there are plenty of flowers; slopes where Alpenrose (*Rhododendron ferrugineum*) and dwarf juniper (*Juniperus communis*) shelter lfp.

Distribution: Pyrenees and parts of the Cantabrian-Asturian Mountains.

Lfp: unconfirmed. Possibly plantains (*Plantago* spp.) and valerians (*Valeriana* spp.). Needs investigating. The often cited *Viola calcarata* is endemic to the Alps.

Identification: very similar to the Mountain Fritillary (*Boloria napaea*); ups black markings chunkier, and unfw markings more pronounced. Female ups without violet, pink or green overtones.



female, Tossa d'Alp, Girona, 19.7.02



female, Port de Bonaigua, Lleida, 2.7.06



male, above Arres, Val d'Aran, Lleida, 1.7.06



female, Puigmal, Pyrénées Orientales, 19.7.01

Boloria napaea (Hoffmannsegg, 1804)

Mountain Fritillary

| MA | Υ | J | U | Ν | J | L | Υ | Α | U | G | S | Ε | Р |
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one brood

Habitat: 1500-2500m. Damp grassy areas, usually near or above tree-line, with plenty of flowers.

Distribution: E Pyrenees (Girona and Lleida) and Pyrénées Orientales (France).

Lfp: alpine bistort (Polygonum viviparum)

Identification: like Shepherd's Fritillary (*Boloria pales*): line markings on unfw faint, sometimes absent; male ups markings finer and more linear; female sometimes with violet or pink overtones.



female, Vall d'Eina, Pyrénées Orientales, 5.7.05



Vall d'Eina, Pyrénées Orientales, 23.7.04



male, Vall d'Eina, Pyrénées Orientales, 5.7.05

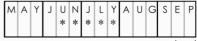


male, Vall d'Eina, Pyrénées Orientales, 5.7.05



female, Vall d'Eina, Pyrénées Orientales, 5.7.05

Boloria eunomia (Esper, 1800) Bog Fritillary



one brood



male, Supermolina, Girona, 2.7.18

Habitat: 1200-1950m. Damp sheltered ground with plenty of bistort (*Polygonum*).

Distribution: E Pyrenees (Lleida, Girona, Andorra and Pyrénées Orientales); Cantabrian-Asturian Mts. (e.g. Puerto de Tarna, Puerto de Piedrasluengas and near Reinosa).

Lfp: bistort (Polygonum bistorta).

Identification: unhw with diagnostic row of small pale post-discal spots ringed with black; ups like Small Pearl-bordered Fritillary (*Boloria selene*), with which it often flies; black markings usually finer and without large orange-ringed black spot at base of hw (present in *B. selene* and *B. euphrosyne*). Female underside similar to male.



male, Puerto de Tarna, Asturias, 27.6.09



habitat, Puerto de Tarna, Asturias, 27.6.09



female, Porte Puymorens, P.O., 28.6.01



male, Supermolina, Girona, 2.7.18

Boloria selene (Denis and Schiffermüller, 1775)

Small Pearl-bordered Fritillary

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one or two broods according to locality

Habitat: 0-2400m. Grassy places sheltered by trees or bushes; usually damp areas.

Distribution: north of Peninsula from Portugal and Galicia through Asturian-Cantabrian Mts., La Rioja and N Navarra, across Pyrenees to Girona.

Lfp: violets (Viola spp.).

Identification: upperside very similar to Bog Fritillary (*Boloria eunomia*); fw narrower and black markings usually chunkier; black spot at base of each hw ringed by orange-brown, giving the appearance of two eyes, characteristic and distinctive in both *B. selene* and *B. euphrosyne*, but absent or very small in *B. eunomia*. Upperside not as bright as *B. euphrosyne*; wings usually smaller with finer black markings. Black marginal border on all wings unbroken. Underside markings and colouring distinctive.



male, Porte Puymorens, Pyrénées Orientales, 18.6.03



male, Porte Puymorens, Pyrénées Orientales, 13.7.01



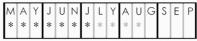
female, Puerto de San Glorio, Cantabria, 27.6.09



female, Porte Puymorens, Pyrénées Orientales, 13.7.01

Boloria euphrosyne (Linnaeus, 1758)

Pearl-bordered Fritillary



one or two broods, second is partial



male, Clot de l'Orri, Lleida, 30.6.05



female, La Molina, Girona, 17.7.02



male, above La Masella, Girona, 13.6.04

Habitat: 50-2000+m. Sheltered grassy places with plenty of flowers, usually near trees; often in, or near open coniferous woodland.

Distribution: most common in Pyrenees and pre-Pyrenees from W Girona to Navarra as well as Álava, La Rioja and Burgos; less common in mts. of Cantabria and Asturias and only scattered colonies in E Lugo, NE Zamora and N Portugal.

Lfp: violets and pansies (Viola spp.).

Identification: like Small Pearl-bordered Fritillary (*Boloria selene*), but usually larger; ups brighter, especially in male; both sexes more ginger-orange compared to *B. selene*; ups black margins broken on fw; all other black markings usually larger and chunkier than in *B. selene*.

Underside colour and markings distinctive; orange and yellow background with silvery white marginal lunules on hw and two more silvery spots, one at the base of the wing and the other in the centre of the discal area. Marginal lunules without strong, black basal chevrons.



habitat. Clot de l'Orri, Lleida, 30.6.05

Boloria dia (Linnaeus, 1767) Weaver's or Violet Fritillary

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two or three broods according to locality

Habitat: 0-1550m. Scrubby, flower-rich hillsides and meadows; woodland clearings and margins.

Distribution: E Galicia and extreme NE Portugal through Asturias, N León, N Palencia, Cantabria, Burgos, La Rioja, N Soria and País Vasco into most of Navarra; across N Huesca into much of Cataluña; also Sierra de Guadalajara. Rare in Zamora, Zaragoza and S Huesca.

Lfp: violets and pansies (Viola spp.).

Identification: margin of hw sharply angled at v8; ups like Pearl-Bordered Fritillary (*B. euprosyne*) but wings shorter; easily mistaken for Small Pearl-bordered Fritillary (*B. selene*) in flight, but uns very distinctive.

Notes: numbers usually greatest in late summer.



male, Querforadat, Lleida, 3.7.01





habitat near Querforadat, Lleida, 23.6.03



female, Gaurdiola de Berguedà, Barcelona, 26.7.01

Melitaea cinxia (Linnaeus, 1758)

Glanville Fritillary

| Α | Р | R | Μ | Α | Υ | J | U | Z | J | L | Υ | Α | U | O | S | Е | Р |
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usually one brood (see notes)



male, Valle de Chistau, Huesca, 12.6.10

Habitat: 0-2000m (rarely below 500m). Warm stony areas with patches of scrub; flowery meadows; woodland clearings and margins.

Distribution: most mountains throughout Peninsula though more scarce and scattered in south. Absent from much of Galicia and Asturias, coastal Mediterranean band and SW Andalucia: also absent from S Portugal.

Lfp: mainly plantains, especially ribwort plantain (*Plantago lanceolata*).

Notes: in parts of Cataluña, April and May with a second brood in July/Aug.



female, Port de Toses, Girona, 12.6.04



female, Valle de Chistau, Huesca, 12.6.10



female, below Lles, Lleida, 12.6.04



male, Bellver de Cerdanya, Lleida, 17.5.02

Melitaea phoebe (Denis and Schiffermüller, 1775)

Knapweed Fritillary

| Α | Р | R | Μ | Α | Υ | J | U | Z | J | L | Υ | Α | U | G | S | Е | Ρ |
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mainly two broods, but partial third in hot localities

Habitat: 0-2300m. Mainly warm dry grassland with an abundance of flowers; often on scrubby hillsides or in open woodland.

Distribution: most of Peninsula; most common in north; scarce in Galicia, Ebro basin and C Spain south of Madrid; very few records from S Portugal.

Lfp: mainly knapweeds (Centaurea spp.).

Identification: male and female uns alike. Ups similar in colour and pattern to Provençal Fritillary (*Melitaea deione*) but outer margin of fw slightly concave. Uns quite different, especially in basal and discal areas.

Uns like Aetherie Fritillary (*Melitaea aetherie*) especially in basal area, but ups notably different; *M. aetherie* restricted in distribution and very localised.

Notes: Males territorial, often seen sitting on prominent flowers or seed heads where they wait to intercept any passing females, chasing off other intruding males.

Both sexes show considerable variation; females often very large.



female, above Víllec, Lleida, 4.7.01



female, above Víllec, Lleida, 4.7.01



male, above Víllec, Lleida, 4.7.01



female, above Víllec, Lleida, 4.7.01

Melitaea aetherie (Hübner 1826)

Aetherie Fritillary

| Γ | Α | Ρ | R | Μ | Α | Υ | J | U | Ν | J | L | Υ | Α | U | G | S | Е | Р |
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| L | | | | | | | | | | | | | | | | | | |

one brood



habitat, Serranía de Ronda, Málaga, 5.5.09



female, Serranía de Ronda, Málaga, 7.5.09



female, Los Alcornocales, Cádiz, 3.5.09

Habitat: 0-700m. Warm flower-rich meadows; lightly grazed grassland dotted with cork oak; neglected patches of cultivation, where Ifps thrive.

Distribution: SW of Peninsula: most records from the Algarve and Cádiz, but also recorded from the Portuguese regions of Baixo Alentejo and Lisbon, and the Spanish provinces of Huelva, Badajoz, Jaén, Seville, Córdoba, Granada and Málaga. A recent record for Sierra de Espuña in Murcia needs confirmation.

Colonies are rare and extremely local; threatened with extinction in many of its former strongholds by urban development.

Lfp: knapweeds (*Centaurea* spp.), esp. *Centaurea* calcitrapa and *Centaurea* carratracensis. Also cardoon (*Cynara cardunculus*).

Identification: male bright and distinctive. Female variable, occasionally like male but usually darker, sometimes like a dark form of the female Spotted Fritillary, *Melitaea didyma* f. *meridionalis*, though no distributional overlap likely with this form. Uns of both sexes alike, with certain similarities to Knapweed Fritillary (*M. phoebe*) and Provençal Fritillary (*M. deione*).



female, Serranía de Ronda, Málaga, 6.5.09



male, Serranía de Ronda, Málaga, 5.5.09



male, Los Alcornocales, Cádiz, 2.5.09



female, Los Alcornocales, Cádiz, 2.5.09

Melitaea didyma (Esper, 1779) Spotted Fritillary



male f. meridionalis, Taradell, Barcelona, 18.5.05



male f. meridionalis, Estana, Lleida, 10.7.06



female f. meridionalis, Querforadat, Lleida, 3.7.01

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two or three broods according to season & locality

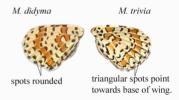
Habitat: 0-2300m. Dry flowery hillsides and meadows, with or without scrub; waste ground; margins of cultivated land; occasionally alpine meadows.

Distribution: most of Peninsula: scattered in south; rare along south coast and in west Andalucia; rare in Galicia and W Asturias; few records from País Vasco.

Lfp: principally plantains (*Plantago* spp.) and toadflax (*Linaria* spp.). Snapdragon (*Antirrhinum majus*) and *Odontites luteus* also cited.

Identification: in northern regions, f. *meridionalis*: males bright orange-red, similar to Lesser Spotted Fritillary (*M. trivia*); females variable, usually heavily marked and very distinctive. Further south, f. *occidentalis*: both sexes paler; females not so heavily marked, and like male, readily mistaken for *M. trivia*.

In *M. didyma*, unhw black marginal spots usually clearly rounded on inner side rather than pointed. *M. trivia* has a lower discoidal vein on hw, best looked at on underside (see opposite).





female f. occidentalis, Los Filabres, Almería, 27.6.07

Melitaea trivia (Denis and Schiffermüller, 1784)

ssp. ignasti (Sagarra, 1926)

Lesser Spotted Fritillary

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two broods except in high mts. of Granada and Almería

Habitat: 0-2200m (over 3000m in Sierra Nevada). Hot, dry, grassy areas, usually with patches of scrub.

Distribution: northern half of Peninsula, reaching south to Sistemas Central and Ibérico; isolated colonies in Sierra Nevada and Sierra de Gádor.

Lfp: mulleins, esp. great mullein (*Verbascum thapsus*).

Identification: male and female similar; like male Spotted Fritillary (*M. didyma*), but uns marginal spots pointed on inside (see opposite page). Lower discoidal vein present on hw, most clearly visible on underside (see below).

Lower discoidal vein



Close-up on the hw of *M. didyma* showing the absence of the lower discoidal vein.



Notes: 2nd brood appears to be more abundant; butterflies of this brood often very small. In mts. of Granada and Almería, 1 brood in June/July



pair (female - top), Bellver, Lleida, 7.8.02



female, Víllec, Lleida, 26.5.99



male, Sant Sadurni de Osomort, Barcelona, 2.9.16



female, below Prullans, Lleida, 7.8.02

Melitaea diamina (Lang 1789) False Heath Fritillary

| Μ | Α | Υ | J | U | Ν | J | L | Υ | Α | U | G | S | Е | Р |
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one brood (6/7); 2 reported in Tortosa area (5/6; 7)



female, above Víllec, Lleida, 17.6.03



male, Prullans, Lleida, 6.7.05



female, above Víllec, Lleida, 17.6.03

Habitat: 100-2000m. Sheltered flowery hillsides and meadows, often in or near open woodland.

Distribution: northern band, mainly from W Girona through Pyrenees and pre-Pyrenees to the extreme east of Navarra; some colonies further south in Girona and Barcelona (e.g. Montseny mountains). Scattered colonies in NE Portugal, Galicia and Asturias; more common in N León and Picos de Europa. Isolated records from Álava and La Rioja. Old records from Tortosa area in Tarragona, where it was said to be double brooded.

Lfp: mainly common and marsh valerians (*Valeriana officinalis* and *V. dioica*); *Veronica*, *Melampyrum* and *Plantago* spp. also reported.

Identification: considerable amount of variation shown. Nominate form present only in Val d'Aran; elsewhere f. vernetensis, pictured here. A clearly marked black dumbell-shaped discal spot in s1b of upfw is characteristic, though not always present; a similar mark is often found in Provençal Fritillary (Melitaea deione), but overall appearance is quite different.

When present, a small black spot centred along or near the outer edge of each orange and yellow submarginal lunule on the unhw is diagnostic, but these spots are often difficult to discern, and are sometimes entirely absent.



Notes: males often seen 'puddling'.



male, Víllec, Lleida, 18.7.02



female, Martinet, Lleida, 20.7.04



male, Val de Toran, Val d'Aran, Lleida, 2.7.19



female, Martinet, Lleida, 20.7.04

Melitaea celadussa (Fruhstorfer, 1910)

Southern Heath Fritillary

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one brood



habitat, above La Masella, Girona, 6.7.05

Habitat: 0-2200m (up to 2500 in Sierra Nevada). A variety of habitats, often in or near open woodland; warm, sheltered places with flowers and lfp.

Distribution: N Portugal; northern, central and eastern mts. of Spain with isolated colonies in the south in Betic and Subbetic mts.

Lfp: ribwort plantain (*Plantago lanceolata*), cowwheat (*Melampyrum pratense*), germander speedwell (*Veronica chamaedrys*), foxglove (*Digitalis purpurea*).

Identification: highly variable, and often difficult to separate from *M. deione* and *M. parthenoides*. A useful diagnostic feature is the strong black internal border to the pale marginal spots in s2 and 3 of unfw but this is often hidden when wings are closed. See also *M. deione* and *M. parthenoides*.



male, above La Masella, Girona, 6.7.05





M. deione black line thin





female, Vall d'Ingla, Lleida, 9.7.06



male, above La Masella, Girona, 6.7.05

Melitaea deione (Geyer, 1832)

Provençal Fritillary

| Α | Р | R | Μ | Α | Υ | J | U | Ν | J | L | Υ | Α | U | G | S | Е | Р |
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one to three broods according to season and locality

Habitat: 200-1850m. Flowery places, usually with some scrub and tree shelter. In Cataluña, usually associated with hot, dry Mediterranean habitats.

Distribution: most mt. ranges in the N of the Peninsula, though few records from northern Sistema Ibérico and País Vasco; absent from extreme NW; local and scattered in SW Spain and S Portugal. High concentration of records from Picos de Europa, N Huesca, Cataluña, Sistema Central, Sierra de Albarracín, Serranía de Cuenca, and mts. of N Portugal, perhaps due, in part, to high levels of recording in these areas.

Lfp: common and alpine toadflax (*Linaria* vulgaris and *L. alpina*) and *Antirrhinum* spp.

Identification: due to considerable variation in this species and in the Southern Heath Fritillary (Melitaea nevadensis) difficulty may arise in separating all but the most 'typical' examples. Unhw usually has distinctive orange-red spots in a series of clear, pale yellow submarginal lunules. Unfw marginal spots in s2 & 3 without thick black internal borders (see page opposite). Female ups usually with paler shade of orange in discal area of fw; male ups more uniform in colour, often with distinct dumb-bell or club-shaped black spot in s1b of fw (though not in example shown here).



Sierra de Espuña, Murcia, 30.4.03



male, Sierra de Espuña, Murcia, 30.4.03



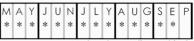
male, Fredes, Castellón, 14.7.13



female, Sierra de Espuña, Murcia, 30.4.03

Melitaea parthenoides (Keferstein, 1851)

Meadow Fritillary



one or two broods according to altitude



female, Moià, Barcelona, 10.6.10



female, Moià, Barcelona, 10.6.10



female, Alp, Girona, 2.7.01

Habitat: 0-2600m. Flowery meadows, hillsides, woodland clearings, margins of woods and alpine grassland.

Distribution: scattered in NW, becoming more widespread from Cantabria across to Girona. Frequent in Sistemas Central and Ibérico; more isolated in the high mts. of southern and eastern Andalucia.

Absent from S Portugal and apparently very local in the north.

Lfp: mainly ribwort plantain (*Plantago lanceolota*), but a variety of other plants cited inc. *Antirrhinum*, *Linaria* and *scabiosa* spp.

Identification: usually the smallest of the *Melitaea* species flying in the Peninsula. Male discal mark in s1b of upfw usually clearly oblique but not always so. Discal area of male uphw sometimes without markings, and markings on upfw sometimes reduced.

Female sometimes uniform in colour, like male, and sometimes with contrasting shades of orange. Uns like *M. nevadensis* but without thick black edging to fw marginal lunules in s2 and s3.



female, Ulldeter, Girona, 1.7.05



male, Valle de Chistau, Huesca, 12.6.10



male, Alp, Girona, 2.7.01



male, Moià, Barcelona, 10.6.10

Euphydryas aurinia (Rottemberg 1775)

Marsh Fritillary

| Α | P * | | | A * | | J * | | * | | L * | Y * | Α | U | G | S | Е | Р |
|---|--------|--|--|--------|--|--------|--|---|--|--------|--------|---|---|---|---|---|---|
|---|--------|--|--|--------|--|--------|--|---|--|--------|--------|---|---|---|---|---|---|

one brood: top stars = f. beckeri; lower stars = f. pyrenesdebilis



female, Ulldeter, 2600m, Girona, 2.7.05



female, Ulldeter, 2600m, Girona, 14.7.03



female, Tossa d'Alp, 2500m, Girona, 6.7.05

Habitat: 0-3000m. Sheltered scrub or grassy areas supporting larval food-plant. At high altitudes, grassy hollows that afford some protection from winds

Distribution: throughout most of the Peninsula except east coast, Ebro and Guadalquivir valleys, and plains of La Mancha and Castille.

Lfp: include small and devil's-bit scabious (Scabiosa columbaria and Succisa pratensis) used in upland areas; honeysuckle (Lonicera spp.) used in Mediterranean areas, and gentians (Gentiana) used at higher altitudes by ssp. pyrenesdebilis.

Identification: similar to the Spanish Fritillary (*Euphydryas desfontainii*) but unfw without black postdiscal spots. Black marginal chevrons on upfw filled mainly with orange, often becoming yellow towards inner point (filled entirely with pale yellow in *E. desfontainii*).

Male and female similar, both variable; females sometimes very large.

Notes: butterflies from Spain and Portugal in the Mediterranean zone generally below about 800m belong to the large, bright ssp. *beckeri*. Ssp. *aurinia* usually flies above 800m in places with a central-european climate, e.g. in W Pyrenees & Cantabrian Mountains. In E Pyrenees above 2000m only ssp. *pyrenesdebilis* is found (formerly known as ssp. *debilis*).

All pictures on this page are of ssp. *pyrenesdebilis*. Ssp. *beckeri* may be a separate species



male, Ulldeter, 2600m, Girona, 2.7.05



male (ssp. aurinia), Cava, Lleida, 11.6.04



male ssp beckeri, Moìa, Barcelona, 18.5.05



female ssp beckeri, La Pobla de Claremunt, Barcelona, 22.5.05

Euphydryas desfontainii (Godart 1819)

ssp. baetica (Ramber 1858)

Spanish Fritillary

| Α | Р | R | Μ | Α | Υ | J | U | Z | J | L | Υ | Α | U | G | S | Е | Р |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | * | * | * | * | * | * | * | * | * | | | | | | | | |

one brood



female, Ainsa, Huesca, 11.6.10



male, Moìa, Barcelona, 25.5.05



male, Moìa, Barcelona, 18.5.05

Habitat: 300-1600m. Dry, hot, scrubby areas of grassland, dry stream beds, disused terraces and other areas of abandoned cultivation.

Distribution: limestone habitats throughout much of Spain; absent from Girona and an area in the west that includes most of Galicia, León, Asturias, Zamora, Salamanca and Cáceres. Also absent from Portugal except for a small number of sites in the Algarve.

Lfp: mainly scabious spp. *Cephalaria leucantha* and field scabious (*Knautia arvensis*).

Identification: like Marsh Fritillary (*Euphydryas aurinia*); ups marginal lunules small, filled with pale yellow and edged with black on all wings (in those areas where *desfontainii* flies, upfw lunules of *E. aurinia* usually larger, and filled mainly with orange or red). Unfw with distinctive black post-diseal spots (absent in *E. aurinia*).



male, Prado Negro, Granada, 15.5.09



disused terracing near Canelles, Lleida, 11.6.04



female, Ainsa, Huesca, 11.6.10



female, Canelles, Lleida, 11.6.04

Melanargia galathea (Linnaeus 1758)

Marbled White



one brood



male, Redo, Cantabria, 28.6.09



male, Vielha, Lleida, 4.7.06



female, Fuente Dé, Picos de Europa, Cantabria, 3.7.97

Habitat: 0-1500m. Sheltered grassy places with flowers and often bushes or small trees.

Distribution: from the Pyrenees in NW Lleida through to the Cantabrian-Asturian Mts. in the west, reaching south into the Sierra de San Juan de la Peña and across to La Rioja and N Burgos.

Lfp: grasses inc. *Festuca liviensis* and *Avenula pratensis*.

Identification: differentiated from the similar Iberian Marbled White (*M. lachesis*) by large areas of strong black scaling in basal and discal areas of upfw and uphw, entering basal area of cell on fw.

Notes: a form known as *leucomelas*, in which the unhw is white, sometimes occurs; similar to *M. lachesis* f. *cataleuca*.



pair (male left) Val de Toran, Lleida, 30.6.06



male, Estíbaliz, Álava, 5.7.09

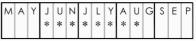


female, Montes Obarenes, Burgos, 15.8.08



female, Val de Toran, Lleida, 30.6.06

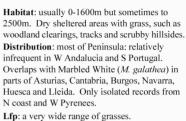
Melanargia lachesis (Hübner 1790) Iberian Marbled White



one brood



female f. cataleuca, Collsuspina, Barcelona, 28.6.05



2.p. a very wrate range or grasses.

Identification: cell on forewing not divided by strong black bar as in Esper's marbled white (*Melanargia russiae*).

Cell of forewing without heavy dusting of dark scales; hindwing lacking heavy black basal and discal markings found in *M. galathea*.



male, Querforadat, Lleida, 20.7.01



female, Puerto de San Glorio (west), León, 30.6.97



pair (female top), La Molina, Girona, 4.8.02



male, Prado Negro, Granada, 25.6.07



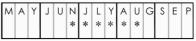
male, Alfacar, Granada, 26.6.07



male, Manresa, Barcelona, 23.6.94

Melanargia russiae (Esper, 1783) ssp. cleanthe (Boisduval, 1833)

Esper's Marbled White



one brood





Lfp: Brachypodium and Stipa spp. cited.

S Portugal.

Habitat: 400-1500m. Sheltered grassy places including wide woodland rides and clearings and scrubby hillsides. Distribution: mts. in northern half of Peninsula: some records from Cantabrian coast at low altitude: isolated colonies in S Spain (Jaén and Granada); absent from

Identification: separated from Marbled White (Melanargia galathea) and Iberian Marbled White (M. lachesis) with which it often flies, by a dark jagged bar running down through cell of fw. Uns distinctive.



female, La Garganta, Cáceres, 24.6.09



female, Son, Lleida, 7.7.06



male - drying wings, Alp, Girona, 1.7.01



male, Riaño, León, 10.7.00



male, Alp, Girona, 10.7.03



male, Son, Lleida, 7.7.06

Melanargia occitanica (Esper, 1793)

Western Marbled White



one brood



female, Sierra de Ricote, Murcia, 3.5.03

Habitat: 0-1500m. Hot, dry, grassy hillsides with patchy scrub; rocky places with sparse grasses; neglected margins of cultivated land.

Distribution: most of Peninsula apart from S Portugal, Galicia and north side of Asturian and Cantabrian Mts. Rarer in west Spain.

Lfp:grasses inc. Brachypodium phoenicoides, B. retusum, Stipa offneri, Stipa lagascae and Ligeum spartum.

Identification: brown outlining of veins on unhw distinctive.

Notes: habitat frequently shared with Spanish Marbled White (*Melanargia ines*).



male, La Pobla de Claramunt, Barcelona, 25.5.05



male, Moià, Barcelona, 25.5.05



female, Santa Eulalia, Teruel, 16.6.10



male, l'Espluga de Francolí, Tarragona, 21.5.02

Melanargia ines (Hoffmannseg, 1804)

Spanish Marbled White

| М | Α | R | Α | Р | R | Μ | Α | Υ | J | U | Z | J | L | Υ | Α | U | G |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
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one brood

Habitat: 0-1500m. Hot, dry, grassy hillsides with patchy scrub; rocky places with sparse grasses; neglected margins of cultivated land.

Distribution: most of Peninsula but absent from N and NW (Galicia, Asturias, Cantabria, León, Palencia and País Vasco); rare in Cataluña (absent from east).

Lfp: various grasses including tor grass (*Brachypodium pinnatum*) and *Stipa* spp.

Identification: Western Marbled White (*Melanargia occitanica*), which often flies in same habitat, has distinctive brown outlining to veins on unhw.



female, l'Espluga de Francolí, Tarragona, 21.5.02



habitat, Vega de Granada, Granada, 30.4.07



male, Vega de Granada, 12.5.09

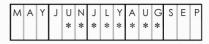


male, Vega de Granada, 12.5.09



female, Vega de Granada, 12.5.09

Hipparchia fagi (Scopoli, 1763) Woodland Grayling



one brood



male, Convent de Benifassà, 24.7.13



female, Bescaran, Lleida, 4.8.06



male, Montblanc, Tarragona, 19.6.94

Habitat: 0-1500m. Grassy places usually with bushes; often in open woodland, especially with evergreen oaks.

Distribution: primarily a northern species: Cataluña to Asturias. Some sites in La Rioja and some reliable records from south Aragon: Teruel (Gargallo, Javalambre and Gúdar) and Zaragoza (Bujaraloz). Also NE Castellón.

Lfp: grasses. *Avenula pratensis*, upright brome (*Bromus erectus*), and *Festuca* spp. cited.

Identification: very like the Rock Grayling (Hipparchia hermione) but usually larger, and often with smaller unfw ocellus which is not entirely surrounded by pale yellow. Male upfw pale postdical band less distinct than *H. hermione*, esp. near apex. In both sexes uphw postdiscal bands tend towards white (more creamy yellow in *H. hermione*). Ups features discernable in flight at close range.



male, Convent de Benifassà, Castellón, 24.7.13

Hipparchia hermione (Linnaeus, 1764)

Rock Grayling

M A Y J U N J L Y A U G S E P

one brood

Habitat: 0-2100m. Stony or rocky areas in a wide variety of habitats, including dry, hot, scrubby hillsides, and woodland clearings, tracks and margins.

Distribution: mountainous areas across most of the Peninsula; rare or absent from S Portugal, Badajoz, Córdoba, Sevilla and Huelva.

Lfp: grasses. *Arrhenatherum elatius* and *Festuca paniculata* cited.

Identification: very similar to Woodland Grayling (*H. fagi*); usually smaller, with larger unfw ocellus which is surrounded by a pale yellowish colour (in *H. fagi* there is no strong yellow band encircling the top of the ocellus).

Ups postdiscal bands pale, creamy-yellow on both fw and hw (greyish-white on hw of *H. fagi*); on male, upfw band more distinct at apex.



male, Sierra de Los Filabres, Almería, 26.6.07



female, Riaño, León, 11.7.00



male + female (right), Tramcastilla, Teruel, 31.7.13



female, Noguera, Teruel, 8.8.06

Hipparchia semele (Linnaeus, 1758)

Grayling



one brood



male, Sierra Elvira, Granada, 13.5.09



female, Bescaran, Lleida, 4.8.06



female, Víllec, Lleida, 15.7.03

Habitat: 0-2000m. Warm, dry scrubby places, including open woodland (especially pinewoods) and heathland.

Distribution: widespread in uncultivated areas of Peninsula; colonies scattered in S Portugal and apparently rare in Jaén (perhaps due to a poor level of recording in the province). Possibly absent from Badajoz, Sevilla and Huelva.

Lfp: various grasses. Arrhenatherum elatius, Festuca elegans, Brachypodium phoenicoides and Festuca spp cited.

Identification: male ups dark greyish-brown with faint orange-yellow postdiscal patches, barely noticeable in flight, and white pupilled ocelli in s2 and s5; uphw with a postdiscal yellow-orange band, broken by dark veins and with a small ocellus in s2. Female upfw with larger ocelli and extensive pale yellow postdiscal patches, easily discernable in flight. Undersides of both sexes quite variable.

Notes: males spend a lot of time resting on tree trunks and on the ground, well camouflaged, with fw tucked down. Both sexes strongly attracted to thistles, knapweeds and thymes.



male, Estana, Lleida, 7.7.05

Hipparchia fidia (Linnaeus, 1767) Striped Grayling

| | М | Α | Υ | J | U | Z | J | L | Y * | A * | U * | G * | S * | E * | Р |
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|--|---|---|---|---|---|---|---|---|--------|--------|--------|--------|--------|--------|---|

Habitat: 0-2200m. Hot, dry, scrubby areas of grassland, often with rocky outcrops, and a scattering of trees.

Distribution: widespread throughout most of the Peninsula; apparently scarce in N Andalucia (perhaps due to under-recording); rare in Galicia and northern coastal band; infrequent in Cantabrian -Asturian Mts.

Lfp: grasses. Brachypodium, Festuca and Stipa spp.

Identification: male ups dark greyish-brown, appearing almost black; upfw with small ocelli in s2 and s5 and two small white spots in between, not particularly noticable in flight.

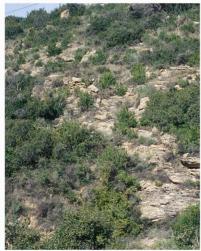
Female similar but upfw with larger ocelli and white spots, and often with small postdiscal patches of pale scales (sometimes also present on male). Both sexes similar to Tree Grayling (Hipparchia statilinus) in flight, but notably darker when fresh.



male, Bescaran, Lleida, 11.7.06



female, Caspe, Zaragoza, 24.7.04



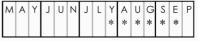
habitat, Bescaran, Lleida, 4.8.06



pair (female - left), Valdecabras, Cuenca, 9.8.06

Hipparchia statilinus (Hufnagel, 1766)

Tree Grayling



one brood



male, Santiago de La Espada, Jaén, 20.7.17



male, Bescaran, Lleida, 4.8.06



female, Berdún, Huesca, 4.8.06

Habitat: 0-2200m. Dry, open pinewoods, often with rocky outcrops; dry areas of scrub and grassland; abandoned terracing.

Distribution: throughout Peninsula, prefering hot, dry areas. Records sparse from Galicia, S Castilla-La Mancha, S Extremadura and north Andalucia.

Lfp: various grasses, inc. Bromus, Brachypodium, Avenula, Dactylis, Koeleria, Nardus, Poa, and Stipa spp. as well as Carex halleriana.

Identification: male ups dark brown; fw with two blind ocelli in s2 + s5 and two small white spots in between; uphw with taces of a slightly lighter post-discal and submarginal band. None of the above features are particularly noticable in flight and on the wing the butterfly is easily mistaken for the Striped Grayling (*Hipparchia fidia*). Female paler than male; all markings larger and brighter; fiv with pale postdical patches; overall appearence in flight paler than female $H.\ fidia$ but separation on the wing sometimes difficult. Uns of both sexes distinctive.

Notes: males tend to stay within small territorial

Dark forms occasionally occur, similar to the North African form, *sylvicola* (see pair below).



female + male (right), Calders, Barcelona, 4.9.96

Pseudochazara williamsi (Romei, 1927)

Nevada Grayling



one brood

Habitat: above 1500m. Stony, grassy slopes, with thin soils and patches of bare ground.

Distribution: Granada and Almería (Sierras de Gádor, María, Nevada, Guillimona, Los Filabres and La Sagra); Murcia (Sierra de Espuña and Revolcadores mountain range).

Lfp: sheep's fescue (Festuca ovina).

Identification: pale wide postdiscal bands on ups readily distinguish this butterfly in flight. Male and female uns similar. Postdiscal bands on female ups slightly paler and wider than male, especially on fw.

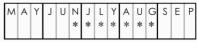


habitat, Puerto de la Ragua, Almería, 30.6.07



(female), Puerto de la Ragua, Almería, 30.6.07

Chazara briseis (Linnaeus, 1764) Hermit



one brood



male, Vall d'Ingla, Lleida, 2.8.06



male, Sierra Alfacar, Granada, 6.7.07



female, Bellver de Cerdanya, Lleida, 17.7.03

Habitat: 0-1800m. Dry, grassy hillsides with bushes; scrubby, rocky places.

Distribution: mainly E half of Peninsula, reaching west to Valladolid, Zamora, Salamanca and Cáceres; also mts. of Andalucia; absent from Portugal, NW and SW Spain (apart from Málaga), N Andalucia and northern coastal band.

Lfp: Stipa parviflora and probably Sesleria albicans, Brachypodium phoenicoides, upright brome (Bromus erectus). and sheep's fescue (Festuca ovina).

Identification: male ups similar in flight to the Southern Hermit (*Chazara prieuri*). Upfw dark brown with highly contrasting pale cream coloured postdiscal bands, broken into a series of large spots; bands on uphw unbroken and wider, extending through discal area.

Female larger; ups bands whiter; fw spots more irregular in size, with ocell in s2 + s5; may be mistaken in flight for female Southern Hermit or female Rock Grayling (*Hipparchia alcyone*). Uns of both sexes distinctive.

Notes: both sexes particularly attracted to flowers of field eryngo (*Eryngium campestre*). Males spend a lot of time in small territorial areas, resting on stones or bare soil.



female, Albarracín, Teruel, 3.8.13

Chazara prieuri (Pierret, 1837) Southern Hermit

| М | Α | Υ | J | U | N * | L * | Y * | A * | U * | G | S | Е | Р |
|---|---|---|---|---|--------|--------|--------|--------|--------|---|-----|-----|-----|
| _ | _ | _ | | _ | _ | _ | | | _ | _ | one | bro | ood |

Habitat: 650-1100m. Hot, dry rocky gullies with bushes and sparse grasses; dry stream beds, often near cereal crops where thistles grow.

Distribution: scattered, local colonies, mainly in arid areas of central and eastern Spain, esp. Madrid and Teruel. Isolated colonies known from León, Soria, Cuenca, Zaragoza, Huesca, Murcia and Granada.

Lfp: grasses, inc. *Lygeum spartum* and possibly *Poa* and *Festuca* spp.

Identification: ups like Hermit (*Chazara briseis*) though white fw postdiscal bands in both sexes more broken and male upfw with pale buff patch in cell, occasionally discernable in flight, as well as a blind ocell in s2.

Zig-zag submarginal markings on unhw clearly differentiate this species from *C. briseis*. White ups patches on all wings replaced by orangebrown in many females (f. *uhagonis*).

Notes: males often seen holding small stretches of territory in dry stony river beds. Females, when not laying eggs, spend a lot of time resting on the ground under evergreen bushes, occasionally flying out to nectar.



female f. uhagonis, Albarracín, Teruel, 28.7.04



male, Albarracín, Teruel, 26.7.04

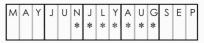


male, Albarracín, Teruel, 25.7.04



female, Albarracín, Teruel, 25.7.04

Satyrus actaea (Esper, 1780) Black Satyr



one brood



habitat, Estana, Lleida 16.7.03



female, Vall d'Ingla, Lleida, 2.8.06



male, Bellver de Cerdanya, Lleida, 22.7.02

Habitat: 100-2000m. Hot grassy, rocky areas; open woodland and sheltered scrubby hillsides with plenty of flowers.

Distribution: mainly northern half of Spain and SE corner, though not Cantabrian coastline and Galicia. Unrecorded in SW Spain apart from two sites in Málaga. A cluster of colonies exist in central Portugal and some isolated colonies occur around the NE border.

Lfp: various grasses, inc. Stipa offneri and Festuca spp.

Identification: like Great Sooty Satyr (*Satyrus ferula*) but smaller. Male ups dark chocolate brown with slight purple or blue iridescence when fresh; upfw with raised sex-brand (not easily seen); white pupilled ocellus in s5 and sometimes a smaller one in s4 (*S. ferula* has an additional ocellus in s2); unfw usually with single large ocellus in s5 (a second smaller one present in *S. ferula* in s2). Female unfw variable, usually with large ocellus in s5 and a smaller one in s2, though often with one or two others in between; unhw darker and more heavily mottled than *S. ferula*.



female, Estana, Lleida, 6.7.06

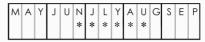


female, Martinet, Lleida, 21.7.02



male, Martinet, Lleida, 20.7.02

Satyrus ferula (Fabricius, 1793) Great Sooty Satyr



one brood



Gorges del Segre, Pyrénées Orientales, 22.7.04



male, Gorges del Segre, P.O., 22.7.04



female, Val de Toran, Lleida, 3.7.06

Habitat: 500-1500m. Grassy or rocky hillsides or valleys with long grasses and flowers, and usually some trees or scrub.

Distribution: Pyreneen valleys in Lleida, Huesca and Navarra, including those of Benasque, Chistau, Isábena, Aran, and Leyr); also Gorges del Segre in Pyrénées Orientales, France.

Lfp: grasses inc. *Avenula pratensis, Festuca liviensis* and Sheep's fescue *F. ovina*.

Identification: like Black Satyr (*Satyrus actaea*) but larger; male upfiw without raised sex-brand; white pupilled ocelli present in s2 & s5 on both sides of fw; white discal band on unhw usually better defined than in *S. actaea*. Female upfw with large ocelli in s2 and s5; uns paler and less mottled than *S. actaea*.

Notes: like Black Satyr, fresh males sometimes shows blue or purple iridesence on upfw at certain angles to the sun (extreme example of this shown opposite).



male, Gorges del Segre, Pyrénées Orientales, 10.7.06

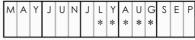


female, Son, Lleida, 7.7.06



male, Gorges del Segre, Pyrénées Orientales, 10.7.06

Minois dryas (Scopoli, 1763) Dryad



one brood



female, Novales, Cantabria, 16.8.08

Habitat: 50-1000m. Rough grassland sheltered by trees or bushes.

Distribution: Cantabrian fringe between Navarra and Asturias, reaching south to provinces of Álava and north Burgos. Infrequent and very local.

Lfp: various grasses, esp. *Bromus* and *Brachypodium* species and *Avena elatior*.

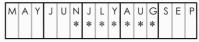
Identification: male ups darker than female, almost black when fresh; fw without paler postdiscal patches. Uns of male dark brown without flecked white bands. Males about the size of Black Satyrs (*Satyrus actaea*); females larger, closer in size to Great Sooty Satyrs (*Satyrus ferula*).

Outer margin of hw scalloped in both sexes, but most noticeable in female. Blue-centred ocelli on ups and uns of fw distinguish this species from all others.



female, Novales, Cantabria, 16.8.08

Brintesia circe (Fabricius, 1775) Great Banded Grayling



one brood

Habitat: 0-1500m (usually above 300m). Dry, sheltered, grassy areas with bushes, often close to rocky outcrops or buildings.

Distribution: mainly inland sites in N half of Peninsula; some coastal populations in Cataluña; rare in Portugal and S Spain.

Lfp: grasses; Arrhenaterum elatius, Bromus sterilis, Elymus repens, Festuca elegans, Brachypodium phoenicoides and Carex spp.

Identification: a large, spectacular butterfly with dark chocolate ups and white postdiscal bands running down through them, highly visible in flight. Female larger than male: ups white bands wider; postdiscal band on unhw wider, but flecked with dark marks and less delineated towards outer margin.

Notes: males often seen resting on rocks and sides of rural buildings. Small groups sometimes seen occupying a few closely clumped bushes, drawn to high concentrations of aphid honeydew.

Both sexes attracted to sap running from wounded trees, and to over-ripe fruit.



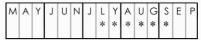
male, Martinet, Lleida, 15.7.03



pair (female ups), Arroyo Cerezo, Rincón de Ademus, Valencia, 27.7.13

Arethusana arethusa (Denis and Schiffermüller, 1775)

False Grayling



one brood



male, Bescaran, Lleida, 4.8.06



female, Tragacete, Cuenca, 12.8.06



male, Tragacete, Cuenca, 2.8.13

Habitat: 0-2000m. Hot, dry, scrubby and grassy places; woodland edges and stony clearings with scrub and grass.

Distribution: mainly inland mountain regions in northern half of Spain and Portugal; lower levels in Cantabria and Asturias.

In Andalucia in Sierras Nevada, Huetor, Los Filabres and Almijara: ssp. *boabdil* (700-2000m).

Lfp: grasses. Upright brome (*Bromus erectus*) and *Brachypodium phoenicoides* cited.

Identification: uns similar to Grayling (*Hipparchia semele*) but unhw with more regular, better defined postdiscal bands; fw with single apical ocellus. Ups with bright orange postdiscal band running across both wings. Wings occasionally opened for brief periods when settled.

In ssp. *boabdil*, orange bands on male ups vestigial; bands on female less reduced. White veins on unhw of both sexes pronounced, running from basal area to wing margin. Butterflies subject to notable individual and local variation.

Notes: ssp. boabdil often treated as a distinct species.



male, Martinet, Lleida, 3.8.02

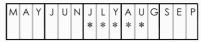


habitat, Tragacete, Cuenca, 24.7.17



female A. arethusa, Tragacete, Cuenca, 12.8.06

Erebia euryale (Esper, 1805) Large Ringlet



one brood



female, Porte Puymorens, P.O., 7.7.03

Habitat: 900-2800m. Usually damp woodland clearings and sheltered edges of woods, with long grass and plenty of flowers.

Distribution: high mountains from E Lugo across Cantabrian mountains through Pyrenees to Girona.

Lfp: grasses. Wood meadow-grass (*Poa nemoralis*); *Festuca* and *Carex* spp.

Identification: size and absence of white-pupilled ocelli make it quite distinct from other *Erebias* flying in the Peninsula.

Notes: in C and E Pyrenees, habitat often shared with Bright-eyed Ringlet (*E. oeme*). Biennial life cycle.



male, Porte Puymorens, P.O., 7.7.03



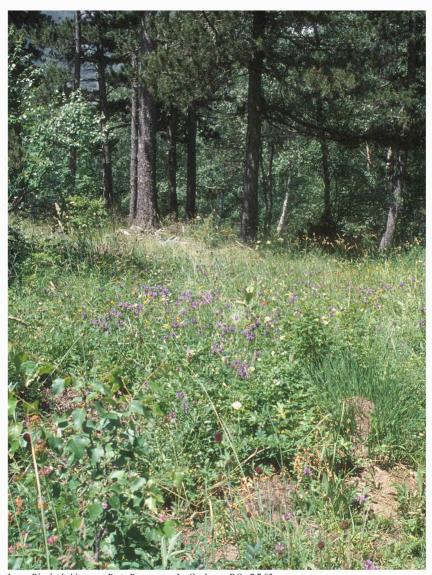
male, Porte Puymorens, P.O., 12.7.03



female, La Molina ski station, Girona, 8.7.03



female, La Molina ski station, Girona, 8.7.03



Large Ringlet habitat near Porte Puymorens, La Cerdanya, P.O., 7.7.03

Erebia manto (Denis and Schiffermüller, 1775)

ssp. constans (Eiffinger, 1908)

Yellow-spotted Ringlet

| Μ | Α | Υ | J | U | Ν | J | L | Υ | Α | U | G | S | Е | Р |
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one brood



(female), above Arres, Lleida, 3.7.06

Habitat: 1500-2800m. Damp places with tall grasses and lots of flowers.

Distribution: rare in Picos de Europa; local but more common in Pyrenees, especially in Huesca and west Lleida.

Lfp: fescues inc. red fescue (Festuca rubra).

Identification: on the wing, similar to fresh male Mountain Ringlet (*E. epiphron*): slightly larger with wings noticably less elongated; flight pattern a little different. No confusion when settled.

Uns markings often entirely absent but sometimes traces of large pale yellow spots on hw, especially in female.

Notes: biennial life cycle



male, above Arres, Lleida, 3.7.06



habitat above Arres, Lleida, 3.7.06



female, above Arres, Lleida, 3.7.06



male, above Arres, Lleida, 1.7.06

Erebia epiphron (Knoch, 1783) Mountain Ringlet

| | М | Α | Y | J | U * | N * | J * | L * | Y * | ′ ` | U | G | S | Е | Р |
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Habitat: 800-2500+m. High grassy slopes and gullies, sometimes descending to river valleys to nectar.

Distribution: northern mountains from E Lugo to Girona, reaching south to Sierra de la Demanda. **Lfp:** grasses inc. mat-grass (*Nardus stricta*) and *Poa* spp.

Notes: E Pyrenees west to Andorra - f. fauveaui with boldly marked ocelli. Andorra to Cantabrian Mts.: f. pyrenaica; like fauveaui but markings reduced on average. Asturian Mnts: f. valdeonica; well developed upfw bands with ocelli either reduced or absent.

Life cycle annual or biennial according to locality.



male f. fauveaui, Tossa d'Alp, Girona, 8.7.03



female f. fauveaui, Tossa d'Alp, Girona, 10.7.03



male f. fauveaui, Clot de l'Orri, Girona, 30.6.05

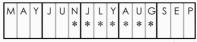


male f. valdeonica, Pto de Tarna, Asturias, 27.6.09



female f. fauveaui, Tossa d'Alp, Girona, 10.7.03

Erebia gorge (Hübner, 1804) f. ramondi (Oberthür, 1909) Silky Ringlet



one brood



female, Ulldeter, Girona, 1.7.05

Habitat: 1750-3000m. Limestone screes.

Distribution: Spain. Meira and Ancares mts. in NW; Picos de Europa (rare); Pyrenees from Huesca to Girona (relatively widespread).

Lfp: unconfirmed grasses; wavy meadow-grass (*Poa minor*) in Alps.

Identification: in Pyrenees, possible confusion with Gavarnie Ringlet (*Erebia gorgone*) opposite. Female with dark veins on unhw; unhw of male clearly mottled, and upfw without ocellus in s2. Red upfw bands wider in both sexes and usually brighter.

Notes: biennial life cycle.



female, Ulldeter, Girona, 1.7.05



male, Ulldeter, Girona, 1.7.05



male, Ulldeter, Girona, 1.7.05



female, Port de Bonaigua, Lleida, 2.7.06

Erebia gorgone (Boisduval, 1833) Gavarnie Ringlet



Habitat: 1800-2900m. Steep grassy, rocky slopes which include some tall grasses; screes.

Distribution: scarce. Pyrenees, mainly Huesca and Lleida but also records from Navarra, Barcelona (Sierra del Cadí), Girona (Puigmal), Andorra and Pyrénées Orientales, France (Porte Puymorens).

Lfp: unknown grasses.

Identification: ups similar to Silky Ringlet (*Erebia gorge*), but upfw with small occllus in s2; male unhw without obvious mottling; female unhw with distinctive pale veins and upfw sometimes with a fourth occllus in s3.

In both sexes upfw bands narrower and darker or duller than in *E. gorge*.



Habitat, Puy de Puymorens, P.O., 5.8.06



female, Aigües Tortes, Lleida, 3.8.06



male, Puy de Puymorens, P.O., 5.8.06



female, Aigües Tortes, Lleida, 3.8.06



male, Puy de Puymorens, P.O., 5.8.06

Erebia triarius (Prunner, 1798)

de Prunner's Ringlet

| Α | Р | R | Μ | Α | Υ | J | U | Z | J | L | Υ | Α | U | O | S | Е | Р |
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one brood



male, Clot de l'Orri, Lleida, 30.6.05

Habitat: 900-2500m. often lightly grazed areas with rocky outcrops; sheltered rides and clearings in open coniferous woodland.

Distribution: mainly mts. in the northern half of the Peninsula, including N Portugal, Sistema Ibérico and Sistema Central.

Lfp: grasses. Festuca ovina; also Stipa and Poa spp.?

Identification: ups like Piedmont Ringlet (*E. meolans*): upfw ocellus in s6 almost always in line with those in s4 and s5 (when present in *E. meolans*, displaced towards outer margin); unhw dark and finely speckled with grey scales giving roughened appearance (brown and not obviously speckled in ssp *noguerae*). Usually emerges earlier than *E. meolans* where both species fly together.



male ssp. noguerae, Orihuela del Tremedel, 19.6.10



male ssp. noguerae, Orihuela del Tremedel, Teruel, 19.6.10



female, above La Masella, Girona, 13.6.04



female, above La Masella, Girona, 13.6.04

Erebia epistygne (Hübner, 1824) Spring Ringlet

| Μ | A * | | A * | | | | | | U | Ν | J | L | Υ |
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| L | * | * | * | * | * | * | * | * | | | | | |

one brood

Habitat: 500-1800m (report from Sierra del Moncayo at 2300m unconfirmed). Grassy, rocky clearings in open, deciduous or pine woods.

Distribution: mts. of NE region of Spain, e.g. Teruel and Castellón (Montes Universales and Sierra de Javalambre); Cuenca (Serranía de Cuenca); Guadalajara (Sierra de Guadalajara and Sierra de Calderesos); Cantabria and Burgos; Lleida (pre-Pyrenees, south to Solsonès - scarce); Girona/Barcelona (Montseny Mts. - scarce/possibly extinct), and Murcia (Sierra Lacera).

Lfp: sheep's fescue (Festuca ovina).

Notes: male and female similar.



habitat, Solsonès, Lleida, 7.4.04

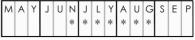


male, Solsonès, Lleida, 4.4.04



male, Solsonès, Lleida, 1.4.04

Erebia arvenensis (Oberthür, 1908) Western Brassy Ringlet



one brood



female, below Estanys de Pera, Lleida, 11.7.03

Habitat: 1500-2850m. Mountain grassland with stony areas, often sheltered by coniferous trees.

Distribution: Cantabrian-Asturian Mts.; Pyrenees (extreme E Navarra to Girona).

Lfp: grasses. Sheep's fescue (*Festuca ovina*) and mat-grass (*Nardus stricta*).

Identification: similar to Pyrenean Brassy Ringlet (*E. rondoui*), but upfw bands usually smaller and more red, with slightly more separated eye-spots. Uphw with small ocelli in discrete, round, red spots. Female uns more mottled than *E. rondoui*. In Cantabrian and Asturian Mts., f. *buronica*; large with well-developed markings.



female, below Estanys de Pera, Lleida, 11.7.03



male, Porte Puymorens, P.O., 7.7.03



male, Estanys de Pera, Lleida, 11.7.03



male, Clot de l'Orri, Lleida, 30.6.05

Erebia rondoui (Oberthür, 1908) Pyrenean Brassy Ringlet

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one brood

Habitat: 1500-2500m on thinly grassed, stony slopes.

Distribution: Pyrenees from E Navarra to Girona. **Lfp**: fescues inc. sheep's fescue (*Festuca ovina*).

Identification: range overlaps with the similar Western Brassy Ringlet (*E. arvenensis*) but the butterflies are rarely seen in the same habitat, as *rondoui* appears to prefer stonier, rockier places. Upfw of *E. arvenensis* with duller, redder bands, and smaller, more separate ocelli, but both species variable and sometimes difficult to separate with certainty. Female uns of *E. arvenensis* more flecked or mottled.



habitat, Tossa d'Alp, Girona, 10.7.03



pair (male right), Ulldeter, Girona, 14.7.03



female, Aigües Tortes, Lleida, 3.8.06

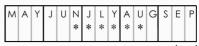


female, Tossa d'Alp, Girona, 17.7.01



male, Aigües Tortes, Lleida, 3.8.06

Erebia hispania (Butler, 1868) Spanish Brassy Ringlet



one brood



male, Sierra Nevada, Granada, 8.7.07

Habitat: 1800-2900m, on thinly grassed, stony

slopes.

Distribution: Sierra Nevada

Lfp: grasses inc. sheep's fescue (Festuca ovina).

Identification: female uns paler. No other erebia species flying in the sierra.

Notes: similar butterflies flying in the Pyrenees (E. ronduoi) often regarded as a spp. of this



male, Sierra Nevada, Granada, 9.7.07



habitat, Sierra Nevada, Granada, 2.7.07



female, Sierra Nevada, Granada, 9.7.07



male, Sierra Nevada, Granada, 9.7.07

Erebia lefebvrei (Boisduval, 1828) Lefèbvre's Ringlet



Habitat: generally above 1800m. Slopes above the treeline, with limestone screes, rocky outcrops and sparse, fine grasses.

Distribution: Pyrenees (inc. Sierra del Cadí), Sierra de Guara (Huesca), Sierra de la Demanda (La Rioja) and Picos de Europa.

Lfp: fescue grasses (Festuca) spp.

Identification: in C Pyrenees, upfw with reddish post-discal bands, suffused, and variable in extent; sometimes absent in male. In E Pyrenees, red markings usually reduced in female and absent in male (f. *pyrenaea*). In Picos de Europa both males and females lack red bands (f. *pyrenaea*).

Notes: life cycle possibly biennial.



habitat, Tossa d'Alp, Girona, 6.7.05



male f. pyrenaea, Tossa d'Alp, Girona, 2.7.01



male f. pyrenaea, Tossa d'Alp, Girona, 19.7.02

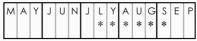


female f. pyrenaea, Tossa d'Alp, Girona, 6.7.05



female f. pyrenaea, Tossa d'Alp, Girona, 19.7.02

Erebia pronoe (Esper, 1780) Water Ringlet



one brood



male f. glottis, Monte El Tobazo, Huesca, 18.8.08

Habitat: 1200-2500m. Grassy mountain slopes. **Distribution:** very local in Asturian/Cantabrian Mts. (f. *martae*) and Pyrennes from E Navarra to Val d'Aran and Andorra (f. *glottis*).

Lfp: grasses. Probably fescues (Festuca) spp.

Identification: male ups markings similar to Piedmont Ringlet (*E. meolans*), but orange bands much reduced and white pupilled ocelli small. Male uns a little like Autumn Ringlet (*E. neoridas*), but more grey/black than brown when fresh; unhw flecked with patches of light silvery-grey scales, especially in postdiscal region.

Female uns very like *E. neoridas* but ups distinct, with pale orange postdiscal bands reduced to small patches around ocelli.



female f. glottis, Puerto de Larrau, Navarra, 21.8.08



habitat, Monte El Tobazo, Huesca, 13.8.08



male f. glottis, Monte El Tobazo, Huesca, 12.8.08



female f. glottis, Puerto de Larrau, Navarra, 21.8.08

Erebia oeme (Hübner, 1804) Bright-eyed Ringlet

| ı | М | Α | Υ | J | U | Ν | J | L | Υ | Α | U | G | S | Е | Р |
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one brood

Habitat: 1400-2500m, sometimes lower. Usually damp areas with long grass, sheltered by trees or bushes.

Distribution: Pyrenees (Benasque valley east to Girona), often in small localised colonies.

Lfp: unconfirmed grasses. In Alps, purple moorgrass (*Molinia caerulea*), *Poa* and *Carex* spp.

Identification: ups a little like Water Ringlet (*Erebia pronoe* - opposite) but with more prominant hw ocelli and brighter orange-red surrounding all ocelli. Undersides distinctive.

Notes: biennial life cycle, with caterpillars overwintering twice.



female, above Alp, Girona, 2.7.01



male, Val de Eina, Pyrénées Orientales, 5.7.05



female, La Molina ski station, Girona, 19.7.02

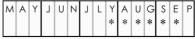


male, above Alp, Girona, 20.6.03



female, Puerto de la Bonaigua, Lleida, 3.7.19

Erebia zapateri (Oberthür, 1875) Zapater's Ringlet



one brood



male, Tragacete, Cuenca, 12.8.06

Habitat: generally above 1200m on calcareous substrates, usually limestone. Grassy clearings in pine or oakwoods usually with a scattering of small bushes; sometimes stony ground with short turf in open pinewoods.

Distribution: Mountains of Sistema Ibérico (Teruel, Cuenca, Guadalajara and Castellón). Recently found in Segovia near Grado del Pico.

Lfp: mat grass (*Nardus stricta*) and probably *Festuca gautieri* and *F. hystrix*.

Identification: upfw with twin apical ocelli; orange band brighter than Autumn Ringlet (*E. neoridas*), which has an overlapping flight period, but does not overlap in distribution.



male f. castiliana, Tragacete, Cuenca, 12.8.06



female, Bronchales, Teruel, 10.8.06



male, Bronchales, Teruel, 10.8.06



female, Orihuela del Tremedal, Teruel, 10.8.06

Erebia neoridas (Boisduval, 1828)

Autumn Ringlet

| 7 | M | Α | Υ | J | U | Ν | J | L | Υ | Α | U | G | S | Е | Р |
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one brood

Habitat: 800-2000m. Grassy rides, clearings and edges of woodland, esp. pinewoods.

Distribution: Pyrenees and pre-Pyrenees (though absent from most of Navarra). Also Valle de Isábena (Huesca), Montseny Mts. (Barcelona and Girona) and Picos de Europa.

Lfp: Festuca spp. and possibly others.

Identification: ups like Piedmont Ringlet (*Erebia meolans*) but always lacking small third eyespot near apex of fw. Unhw with well defined bands that lack ocelli. Flight period overlaps with *E. meolans*, but emergence begins when *E. meolans* is starting to look worn. Distribution does not overlap with the similar Zapater's Ringlet (*E. zapateri*).



male, above La Molina, Girona, 4.8.02



male, Vall d'Ingla, Lleida, 2.8.06



female, La Molina ski station, Girona, 5.8.06

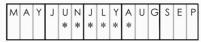


female, above La Molina, Girona, 6.8.02



male, above La Molina, Girona, 2.8.02

Erebia meolans (Prunner, 1798) Piedmont Ringlet



one brood



male, Gorges del Segre, Pyrénées Orientales, 21.7.04

Habitat: 600-2500m. Grassy areas with lots of flowers, usually in open woodland or near the margins of woods; sometimes sheltered grassy hillsides with patchy scrub.

Distribution: northern and central mountains of the Peninsula but not found in Portugal. **Lfp:** grasses. *Nardus stricta* and *Festuca Iberica*.

Identification: a third small ocellus on the upfw usually present and displaced outwardly from the lower two (absent in *E. neoridas* and almost always in line with the others in *E. triarius*). Male uns dark and smooth. The most common and widespread of the 3 species, emerging a bit later than *E. triarius* and before *E. neoridas*.



male, Puerto de Palombera, Cantabria, 17.6.94



female, Arànser, Lleida, 11.7.03



female, Estana, Lleida, 22.6.03



male, Sierra de Gredos, Ávila, 25.6.09

Erebia palarica (Chapman, 1905) Chapman's Ringlet

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one brood

Habitat: 1100-1800m. Grassy hillside meadows and valleys with abundant flora, often in clearings of broom.

Distribution: an endemic species found in Galicia and Cantabrian Mountains (Provinces of Asturias, Cantabria, León, Palencia, Zamora, W Lugo and Orense). Not yet recorded in Portugal, but found near border.

Lfp: Poa and Festuca grass spp. reported.

Identification: noticably larger than Piedmont Ringlet (*E. meolans*) which sometimes flies with it.

Notes: flight period widely variable according to locality: in Picos de Europa at 1200-1650m, usually peaking around late June/early July.



male, Casasuertes, León, 2.7.09



habitat, Casasuertes, León, 2.7.09



female, Casasuertes, León, 2.7.09



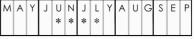
male, La Uña, León, 6.7.97



female, Casasuertes, León, 2.7.09

Erebia pandrose (Borkhausen, 1788)

Dewy Ringlet



Habitat: 1900-2600+m. Slopes and cols with scattered rocks, a mixture of short and long grass,

Distribution: E Pyrenees from Girona to Andorra. Lfp: maybe mat-grass (Nardus stricta) and Festuca

Identification: like False Dewy Ringlet (Erebia sthenyo) but upfw ocelli further in from margin and dark striae present in cell; a dark line separates discal and postdiscal areas. Unhw with dark lines separating basal, discal and postdiscal areas. Some distributional overlap with E. sthenyo, but not known to share same habitat. In flight may be

one brood



male, Ulldeter, Girona, 1.7.05



and rocky outcrops.

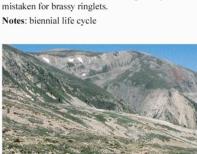
and Sesleria spp., as in Alps.



male, Ulldeter, Girona, 1.7.05



male, Ulldeter, Girona, 2.7.05



habitat, Ulldeter, Girona, 2.7.05



female, Ulldeter, Girona, 2.7.05

Erebia sthennyo (Graslin, 1850) False Dewy Ringlet

| М | Α | Υ | J | U | Z | J | L | Υ | Α | U | G | S | Е | Р |
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one brood

Habitat: 1800-2500m (usually above 2200m). Grassy slopes with scattered rocks, often in the shelter of a rock face.

Distribution: Pyrenees from Andorra to Huesca. **Lfp**: unknown grasses; possibly mat-grass (*Nardus stricta*) and *Festuca* and *Sesleria* spp.

Identification: similar to Dewy Ringlet (*Erebia pandrose*) though not known to fly together; upfw ocelli a little closer to margin; line separating discal and postdiscal areas of upfw feint or absent; no clear striae in cell. Basal and discal regions on male unhw without clear separation. Unfw of both sexes not crossed by darker vertical lines.

Notes: biennial life-cycle



habitat, La Bonaigua, Lleida, 2.7.06



male, La Bonaigua, Lleida, 30.6.18



female, La Bonaigua, Lleida, 2.7.06



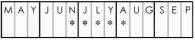
male, La Bonaigua, Lleida, 2.7.06



female, La Bonaigua, Lleida, 2.7.06

Aphantopus hyperantus (Linnaeus, 1758)

Ringlet



one brood



female, Alp, Girona, 12.7.15

Habitat: 0-1600m. Sheltered grassy places with trees or bushes, often a little damp.

Distribution: northern areas: NE Portugal, NW Zamora, Asturian-Cantabrian Mts., País Vasco, Rioja, N Navarra, Val d'Aran, parts of Barcelona, Lleida and much of Girona; several areas in Sierra de Guadarrama and Ayllon Mts.

Lfp: various grasses, esp. *Milium*, *Poa* and *Carex* spp.

Notes: on hot sunny days adults spend much of their time flying in cool dappled light and resting on grasses in the shade of trees or bushes.



male, Alp, Girona, 16.7.02



habitat near Alp, Girona, 5.8.06



female, Alp, Girona, 16.7.02



male, Alp, Girona, 16.7.02

Maniola jurtina (Linnaeus, 1758)

ssp. hispulla (Esper, 1805)

Meadow Brown

| | Α | Р | R | М | | | | | | | | | | | | | | Р |
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one brood

Habitat: 0-2000m. A large variety of habitats, dry or damp, with grasses and flowers.

Distribution: widespread across Peninsula.

Lfp: various grasses inc. annual Meadow-grass (*Poa annua*), rough meadow-grass (*P. trivialis*), Bermuda grass (*Cynodon dactylon*), *Brachypodium phoenicoides*, Stipa tenacissima and Elymus repens.

Identification: female easily separated from Dusky Meadow Brown (*Hyponephele lycaon*) by clear banding on unhw and one large sub-apical ocellus on unfw, sometimes with two white spots; females of *H. lycaon* always have a second ocellus in s2. Male uns brown, usually with a couple of small black dots encircled with orange.

In both sexes unliw only slightly flecked (*H. lycaon* more heavily flecked, making it appear slightly roughened).

Behaviour of the two species is slightly different, with *M. jurtina* regularly settling on vegetation, and *H. lycaon* prefering to settle on rocks and bare ground. Males of *M. jurtina* do not appear to show strong signs of territorial attachment, whereas males of *H. lycaon* regularly return to the same area after being disturbed.

Wing characteristics that separate *M. jurtina* from *H. lycaon* also separate it from *H. lypina*.



female, Ademuz, Valencia, 17.6.10



male, Loule, Algarve, 26.4.07

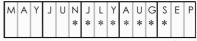


male, Prullans, Lleida, 28.6.01



female, Querforadat, Lleida, 3.7.01

Hyponephele lycaon (Kühn, 1774) Dusky Meadow Brown



one brood



male, Puigmal, Pyrénées Orientalis, 19.7.01



male, Bescaran, Lleida, 11.7.06



female, Sierra de Piedrahita, Ávila, 26.6.09

Habitat: usually 800-1800m but up to 2000m in mts. of Andalucia. Hot, dry, grassy places, usually sheltered by bushes or trees and often with rocky outcrops.

Distribution: most of N Spain except far NW and an area between Guipúzcoa and Asturias; absent from much of central Spain below Sistema Central; present in mts. of S and E Andalucia; absent from Guadalquivir basin, S and most of W Portugal.

Lfp: various grasses, inc. sheep's fescue (Festuca ovina, red fescue (F. rubra), (Bromus erectus) and Stipa pennata.

Identification: like Meadow Brown (*Maniola jurtina*), but fairly easily separated (see meadow brown). Separation from Oriental Meadow Brown (*Hyponephele lupina*) more difficult: unhw of both sexes with slightly more differentiated basal and discal areas and edge of wing less scalloped than in *H. lupina*.

Male upfw usually with faint pale postdiscal band extending into discal area; sex-brand narrow, light and often obscure (disrupted by v2 and v3). Female upfw with pale orange-yellow postdiscal band containing 2 large blind ocelli, and a patch of pale orange in discal area, sometimes only faint (orange postdiscal bands reduced in *H. lupina* and discal area dark brown).

Unhw ground colour in both sexes varies according to habitat.

Male unfw sometimes with additional ocellus in s2. **Notes**: in hot weather females often rest in shade for a large part of the day.



female, Sierra de Piedrahita, Ávila, 26.6.09

Hyponephele lupina (Costa, 1836)

Oriental Meadow Brown



one brood

Habitat: 700-1700m or higher. Hot, dry, grassy places with bushes.

Distribution: most of the Peninsula but absent from NW corner, most of the coast and most of Cataluña. Status in Portugal uncertain.

Lfp: grasses inc. *Aegilops geniculata*, *Stipa offneri* and *S. parvifloa*.

Identification: female separated from Meadow Brown (*Maniola jurtina*), by two ocelli in s2 + s5 of unfw. Male unhw without yellow ringed black spots usually present in *M. jurtina*.

Separation from Dusky Meadow Brown (*H. lycaon*) more difficult: outside edge of hw slightly more scalloped; basal and discal areas of unhw usually less differentiated; marginal and submarginal area of unhw not usually differentiated from postdiscal region.

Male ups uniform dark brown; upfw apical spot small and not enclosed in a yellow ring; upfw sexbrand wide, dark and distinct (see below); *H. lycaon* upfw paler, usually with single apical spot, often in pale orange-yellow ring, and set in a diffuse orange-brown postdiscal band; sex brand narrower and broken by paler veins.

Female upfw without the extensive orange-yellow patches in discal and postdiscal regions, generally found in *H. lycaon*; upfw with 2 blind ocelli, usually smaller than *lycaon* and separately ringed with pale yellow; like the male, appears darker than *H. lycaon* in flight.

Notes: butterflies spend a lot of time in the cool shade of bushes, and females rarely fly out from these before entering an early aestivation; they are seldom seen before late summer, when they re-emerge and are busy laying eggs.



male H. lupina fw

wide unbroken sex brand small dark apical spot

male held with wings open, Sierra Arana, Granada



habitat, Sierra Arana, Granada, 6.7.07



male, Sierra de Los Filabres, Almería, 27.6.07



male, Sierra Arana, Granada, 29.6.07

Pyronia tithonus (Linnaeus, 1771)

Gatekeeper

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one brood



female, Martinet, Lleida, 3.8.02

Habitat: 0-1740m. Woodland clearings and rides; edges of woods; partly shaded corners of meadows; tree-lined roads and tracks; scrubby hillsides.

Distribution: throughout Peninsula but scarcer and more isolated in south.

Lfp: various grasses, esp. *Poa* and *Festuca* spp., *Brachypodium phoenicoides* and Bermuda grass (*Cynodon dactylon*).

Identification: male upfw sex-brand and uns of both sexes distinctive. Female ups like Southern Gatekeeper (*Pyronia cecilia*) but orange of upfw more even in tone around eye-spot; brown colour along costa of upfw without projection curving down around top of eye-spot.



male, Martinet, Lleida, 18.7.02



male, Bellver de Cerdanya, Lleida, 20.7.01



female, Martinet, Lleida, 3.8.02



female, Moscardón, Teruel, 11.8.06

Pyronia cecilia (Vallantin, 1894)

Southern Gatekeeper

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one brood

Habitat: 0-1200m. Hot, dry areas with bushes and sparse grasses; often stony.

Distribution: throughout much of Peninsula but rare in Asturias-Cantabria and only recorded from a few low sites in Pyrenees.

Lfp: Brachypodium retusum and B. phoenicoides.

Identification: male upfw sex-brand and uns of both sexes distinctive. Female ups like Gatekeeper (*Pyronia tithoms*) but upfw eye-spot with paler shade of orange-yellow around the outer edge and brown colouring along costa trailing down around the top of it.

Notes: in Algarve, emergence begins in late April; in northern regions it starts in late June/early July.



male, Llançà, Girona, 15.6.04



female, Sierra Alfacar, Granada, 2.7.07



male, Sagres, Algarve, 27.4.07



female, Sierra Alfacar, Granada, 2.7.07



male, Alhaurín de la Torre, Málaga, 9.5.93

Pyronia bathseba (Fabricus, 1793)

Spanish Gatekeeper

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one brood



male, Sierra de Mijas, Málaga, 3.5.07

Habitat: 0-2000m. Grassy, scrubby areas, often in open woodland.

Distribution: throughout most of Peninsula except NW corner (Galicia); present only at low altitudes in northern mountains; largely absent from high Pyrenees.

Lfp: grasses, esp. *Brachypodium phoenicoides* and probably *B. retusum*, as well as rough meadow-grass (*Poa trivialis*).

Notes: emergence varies considerably according to locality.



male, Sant Vicenç de Calders, Tarragona, 23.5.02



female, Ademuz, Valencia, 17.6.10



male, Sierra Elvira, Granada, 13.5.09



female, Fredes, Castellón, 24.7.13



female, Sant Vicenç de Calders, Tarragona, 23.5.02



male caught by crab spider, Sant Pere de Ribes, Barcelona, 5.6.99



pair (female left), Sierra Alhamilla, Almería, 6.5.93

Coenonympha pamphilus (Linnaeus, 1758)

Small Heath

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polyvoltine



male - spring, Dudar, Granada, 28.3.00



Habitat: 0-2300m. Wide variety of grassy places.

Distribution: throughout most of Peninsula; rarer in dry Mediterranean areas.

Lfp: grasses inc. Festuca spp., annual meadow grass (Poa annua), cocksfoot (Dactylis glomerata), mattgrass (Nardus stricta), crested dog's tail (Cynosurus critatus) and sweet vernal-grass (Anthoxanthum odoratum).

Identification: markings variable but not easily mistaken for any of the other three heaths found in the Iberian Peninsula.

Male and female ups similar; pale yellow-brown with pale brown marginal borders and small apical ocellus on upfw, not evident in flight.



male - summer, Sierra Arana, Granada, 5.7.07



female, Carrascosa, Cuenca, 24.7.17



female - spring, Vega de Granada, Granada, 30.4.07



female - late summer, Noguera, Teruel, 8.8.06

Coenonympha dorus (Esper, 1782) Dusky Heath

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one brood

Habitat: 100-1700m. Hot dry areas with patchy grass, scrub and rocky outcrops.

Distribution: Scattered colonies throughout the Peninsula; scarce in SW and along the Cantabrian coast

Lfp: grasses of dry habitats inc. *Stipa offneri*, *Brachypodium retusum* and *Carex halleriana*

Identification: male upfw darker than female, sometimes evident in flight. Uns of both sexes similar, though spots on female sometimes notably larger. Uns distinct from other members of the genus.

Notes: males territorial. Females seen less often.



male, Sierra Alfacar, Granada, 25.6.07



female, Chelva, Valencia, 25.7.13



male, Centelles, Barcelona, 11.6.04



female, Sant Pere de Ribes, Barcelona, 5.6.99



male, Martinet, Lleida, 7.7.15

Coenonympha arcania (Linnaeus, 1761)

Pearly Heath



one brood



female, Puerto de San Glorio, Cantabria, 29.6.97

Habitat: 50-1800m. Warm grassy places with bushes and flowers; often in open woodland or in meadows bordered by woods.

Distribution: north half of Peninsula, inc. Sistema Central and Ibérico; mainly on hills and mountains above 500m; lower along Cantabrian coast.

Lfp: grasses, esp. Melica, Festuca, Poa and Holcus.

Identification: male and female similar. Uns a little variable but distinctive. Generally larger than Small Heath (*C. pamphilus*) and Dusky Heath (*C. dorus*). Upfw largely pale orange-brown with dark wide borders; uphw dark brown. Similar to the female Chestnut Heath in flight but upfw borders give an overall darker appearance.



female, Sierra de Gredos, Ávila, 25.6.09



male, Sierra de la Demanda, Burgos, 18.6.94



male, Martinet, Lleida, 31.5.99



female, Víllec, Lleida, 18.6.03

Coenonympha glycerion (Borkhausen, 1788)

Chestnut Heath

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one brood

Habitat: 400-1750m. Mainly damp places with long grasses, often sheltered by bushes or trees.

Distribution: all mountainous areas in northern half of Peninsula, including Sistema Central and Ibérico.

Lfp: various grasses inc. upright brome (*Bromus erectus*) and rough meadow grass (*Poa trivialis*).

Identification: Uns distinctive. In flight, male ups show a dark suffusion on the ups of all wings, making it easily identifiable. Upfiw of female predominantly pale orange-brown, similar to Pearly Heath (*C. glycerion*) but overall slightly paler.

Notes: colour of unhw variable, from pale grey to pale orange; number and size of uns ocelli, and size of butterflies also variable, some examples being exceptionally large.

Present in most of its range as ssp. *iphioides*: larger than nominate form; unhw with a complete series of large postdiscal spots, and orange submarginal line usually well developed on both wings. Sometimes given specific status and called Spanish Heath. In E Pyrenees, from about 1700m upwards, often closer to nominate form in appearance: unhw with smaller and fewer postdiscal ocelli, and weaker orange submarginal lines, often absent on unfw (ssp. *pseudoamyntas*). At lower altitudes butterflies are closer to ssp. *iphioides*.



male ssp. iphiodes, Tragacete, Cuenca, 25.7.17



female ssp. iphiodes, La Uña, León, 9.7.00



male ssp. pseudoamyntas, Estana, Lleida, 18.6.03



female ssp. iphiodes, Candelario, Salamanca, 24.6.09

Speckled Wood

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polyvoltine



male, Martinet, Lleida, 20.7.02

Habitat: 0-1200m. Places with grasses growing in dappled light esp. woodland edges and glades, but sometimes in hot scrubby areas with bushes.

Distribution: present in suitable habitats throughout the Peninsula.

Lfp: grasses, inc. wood false brome (*Brachypodium sylvaticum*), cocksfoot (*Dactylis glomerata*), *Elymus repens* and *Oryzopsis miliaceum* among many others.

Notes: males strongly territorial, choosing a sunlit branch or leaf from which to intercept passing females. Any male intruders are promptly seen off.



male, Cava, Lleida, 27.6.03



habitat near Martinet, Lleida, 22.7.04



female, Martinet, Lleida, 1.8.06



pair (male below), Salobreña, Granada, 28.9.03

Lasiommata megera (Linnaeus, 1767)

Wall Brown

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polyvoltine

Habitat: 0-2100m (occasionally higher). A variety of habitats, usually in close proximity to rocky outcrops or bare patches of soil. Individuals often seen nectaring in flower-rich meadows.

Distribution: throughout Peninsula.

Lfp: a wide variety of grasses, inc. *Festuca*, *Poa*, *Agrostis*, *Dactylis* and *Brachypodium* spp.

Identification: male with conspicuous sex-brand. Female readily separated from Large Wall Brown (*Lasiommata maera*) by size and darker, more extensive ups markings.



male, below Prullans, Lleida, 7.8.02



male, below Prullans, Lleida, 17.5.02



female, Santa Eulalia, Teruel, 16.6.10



male, Martinet, Lleida, 20.7.02



pair (female left), Chachana, Cádiz, 23.4.07

Lasiommata maera (Linnaeus, 1758)

f. adrasta (Hübner, 1823)

Large Wall

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one or two broods according to locality

Habitat: 0-1900m. A variety of habitats, including flowery subalpine meadows and open coniferous woodland. Generally sheltered stony or rocky places or other areas with patches of bare ground and sparse grasses.

Distribution: widespread, inc. most mt. ranges, though absent from a large part of the south and south-west, including the Montes de Toledo, Sierra Morena and Guadalquivir valley.



female, Martinet, Lleida, 4.9.16



female, Candanchú, Huesca, 13.8.08



male, above Arres, Val d'Aran, Lleida, 1.7.06

Lfp: grasses, esp. *Poa*, *Glyceria*, *Lolium* and *Festuca* spp.

Identification: female Wall Brown (*L. megera*) similar in colour and pattern but smaller and with heavier, more extensive ups markings.

Lasiommata petropolitana (Fabricius, 1787)

Northern Wall Brown

Flight Period: one brood from late May to July, according to season and altitude.

Habitat: 1500m+. Woodland clearings or sheltered margins, with rocky areas and sparse grasses.

Distribution: rare. High Pyrenees of NE Navarra, Huesca and Lleida (eg. Val d'Aran).

Lfp: grasses, esp. Dactylis and Festuca spp.

Identification: like a dark version of *L. maera* but the size of *L. megera*. Upfw with no orange outside the distinct postdiscal bands and usually more than one dark line in cell. Uphw with strong black line running through cell; Uns darker than *L. maera*. Female with larger, brighter orange patches.



male, Switzerland

O Matt Rowlings

Lopinga achine (Scopoli, 1763)

Woodland Brown



Habitat: small clearings in deciduous woodland, with partly shaded areas of long grass and often a scattering of small trees or bushes.

Distribution: a few places in the Peña Orduña and in the Picos de Europa.

Lfp: grasses esp. *Brachypodium*, *Lolium*, *Triticum* and *Poa* spp.

Identification: flight pattern rather like Speckled Wood (*Pararge aegeria*), but closer in colour and size to a male Large Wall Brown (*Lasiommata maera*). Male and female similar.

Notes: males spend much of their time flying around the branches of trees and bushes hunting for females, occasionally descending to search above the ground vegetation.

Males occasionally drawn to sweat and rotting dung heaps.



habitat, Picos de Europa, Cantabria, 3.7.09



male, Picos de Europa, Cantabria, 3.7.09



male, Picos de Europa, Cantabria, 3.7.09

Danaus chrysippus (Linnaeus, 1758)

Plain Tiger

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polyvoltine; most abundant in late summer/early autumn



historic breeding ground, Playa de Granada, 30.9.03



male, Playa de Granada, 25.9.03



female, Playa de Granada, 3.9.00

Habitat: 0-700m. Coastal plains where the lfp stranglewort (*Cynanchum acutum*) grows among reedbeds and fields of sugar cane; waste ground near urban areas, gardens and municipal parks, where the garden escape, milkweed (*Asclepias curassavica*) grows.

Distribution: localized breeding colonies occur along the mediterranean coast from Cádiz to Cataluña. Winter survival probably restricted to southern colonies.

Lfp: members of the milkweed family, including *Cynanchum acutum* and *Asclepias curassavica*.

Identification: much smaller than Monarch (*Danaus plexippus*). Male with dark sex-brand visible on v2 of hw, just below cell (ups and uns).

Notes: number of broods dependant on seasonal temperatures. No winter diapause; some colonies may be wiped out in unusually cold winters. Many colonies threatened due to expansion of tourist industry and demand for second homes along the coast.

Resident colonies probably survive as dynamic metapopulations, with periodic extinctions of individual colonies.



female, Playa de Granada, 3.9.00



female, Playa de Granada, Granada, 30.9.03



male, Playa de Granada, Granada, 28.9.03

Danaus plexippus (Linnaeus, 1758)

Monarch

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polyvoltine; number of broods depends on season



male, Playa de Granada, Granada, 28.9.03

Habitat: generally below 100m. Coastal areas often close to reedbeds or arable land e.g. sugar cane plantations; also wasteland close to urban areas, esp. in warm gullies near the sea.

Distribution: populations exist at various coastal sites in Granada, Málaga, Cádiz and the Algarve, though wanderers may turn up anywhere along the S and SW coast.

Lfp: milkweed (Asclepias curassavica) used at Barbate (Cádiz) and near Torremolinos (Málaga). At Salobreña and elsewhere in Granada, stranglewort (Cynanchum acutum) appears to be the main lfp.

Notes: habitat frequently shared by Plain Tiger (*Danaus chrysippus*), which is much smaller.

Populations are threatened by coastal development, and at one site by the dumping of refuse; also vulnerable in extreme winters.



male, Playa de Granada, Granada, 30.9.03



female on the lfp Cynanchum acutum, Playa de Granada, Granada, 30.9.03



male (slight colour variant), Torrenueva, Granada, 1.10.03

GLOSSARY

androchonia: wing scales specialized to carry scent released during courtship.

androchonial patch: a patch of scent scales sometimes referred to as a sex-brand.

basally: towards the base of the wing.

bivoltine: having two broods a year.

conspecific: belonging to the same species.

family: a group of genera with distinct characteristics that separate it from other generic groups.

form: a recognisably distinct colouration and pattern in a population of butterflies which differs

from the pattern belonging to typical butterflies of the same species.

genera: the plural of genus (below).

generic name: the first part of a butterfly's Latin name denoting the genus to which it belongs.

genus: a group of species separated from other species by a set of particular characteristics which are believed to show that they are more closely related to each other than they are to other species.

ground-colour: the main background colour on which other colours appear as markings.

nominate form: the form of a species that first gave rise to its Latin name.

ocelli: the plural of ocellus (below).

ocellus/ocelli (singular/plural): round spot on wing, usually black and often with a white dot in the middle (pupil); a blind ocellus is a spot without a white or pale pupil.

polyvoltine: having more than two broods a year.

species: a term used here to describe a particular type of butterfly; a type that cannot successfully interbreed with other types to produce new self-sustaining populations.

specific name: the second part of a butterfly's Latin name, denoting the species to which it belongs.

specific status: having the status of being regarded as a species.

subspecies: a recognisable form existing in a geographically distinct population which breeds true to its type but which is able to successfully interbreed with other populations of the same species.

subspecific name: the third part of a butterfly's Latin name, denoting the subspecies to which it belongs. This part of the name is only normally used when differentiating a butterfly population from the nominate form. The nominate form has the specific name repeated, e.g. *Pieris napi napi*.

subspecific status: having the status of a subspecies. The difference between a subspecies and a form is not always clear: different forms can be found in the same population; a subspecies is more geographically self-contained though not necessarily completely isolated.

taxon/taxa (singular/plural): a biological unit of classification, e.g. family, genus, species or subspecies, into which all creatures are placed.

taxonomic: relating to the classification of species and the taxa in which they are placed.

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LIST OF SPECIES

HESPERIIDAE

| 1 | Pyrgus malvoides (Elwes & Edwards, 1897) | Southern Grizzled Skipper |
|------|---|--|
| 2 | Pyrgus armoricanus (Oberthür, 1910) | Oberthür's Grizzled Skipper |
| 3 | Pyrgus alveus (Hübner, 1803) | Large Grizzled Skipper |
| 4 | Pyrgus foulquieri (Oberthür, 1910) | Foulquier's Grizzled Skipper |
| 5 | Pyrgus onopordi (Rambur, 1839) | Rosy Grizzled Skipper |
| 6 | Pyrgus serratulae (Rambur, 1839) | Olive Skipper |
| 7 | Pyrgus cinarae (Rambur, 1839) | Sandy Grizzled Skipper |
| 8 | Pyrgus cirsii (Rambur, 1839) | Cinquefoil Skipper |
| 9 | Pyrgus sidae (Esper, 1784) | Yellow-banded Skipper |
| 10 | Pyrgus carthami (Hübner, 1813) | Safflower Skipper |
| 11 | Pyrgus andromedae (Wallengren, 1853) | Alpine Grizzled Skipper |
| 12 | Pyrgus cacaliae (Rambur, 1839) | Dusky Grizzled Skipper |
| 13 | Spialia sertorius (Hoffmannsegg, 1804) | Red-underwing Skipper |
| 14 | Spialia rosae (Hernández-Roldán, Dapporto, Dinca, Vicente & Vila, 2016) | Cryptic Red-underwing Skipper |
| 15 | Muschampia proto (Ochsenheimer, 1808) | Sage Skipper |
| 16 | Carcharodus alceae (Esper, 1780) | Mallow Skipper |
| 17 | Carcharodus tripolinus (Verity, 1925) | False Mallow Skipper |
| 18 | Carcharodus lavatherae (Esper, 1783) | Marbled Skipper |
| 19 | Carcharodus baeticus (Rambur, 1839) | Southern Marbled Skipper |
| 20 | Carcharodus floccifera (Zeller, 1847) | Tufted Marbled Skipper |
| 21 | Erynnis tages (Linnaeus, 1758) | Dingy Skipper |
| 22 | Heteropterous morpheus (Pallas, 1771) | Large Chequered Skipper |
| 23 | Carterocephalus palaemon (Pallas, 1771) | Chequered Skipper |
| 24 | Thymelicus acteon (Rottemburg, 1775) | Lulworth Skipper |
| 25 | Thymelicus lineola (Ochsenheimer, 1808) | Essex Skipper |
| 26 | Thymelicus sylvestris (Poda, 1761) | Small Skipper |
| 27 | Hesperia comma (Linnaeus, 1758) | Silver-spotted Skipper |
| 28 | Ochlodes sylvanus (Esper, 1777) | Large Skipper |
| 29 | Gegenes nostrodamus (Fabricius, 1793) | Mediterranean Skipper |
| 30 | Borbo borbonica (Boisduval, 1833) | Zeller's Skipper |
| DA D | ILIONIDAE | |
| IAI. | ILIONIDAL | |
| 31 | Papilio machaon (Linnaeus, 1758) | Swallowtail |
| 32 | Iphiclides podalirius (Linnaeus, 1758) | Scarce Swallowtail |
| 33 | Iphiclides feisthamelii (Duponchel, 1832) | Southern Scarce Swallowtail |
| 34 | Zerynthia rumina (Linnaeus, 1758) | Spanish Festoon |
| 35 | Parnassius mnemosyne (Linnaeus, 1758) | Clouded Apollo |
| 36 | Parnassius apollo (Linnaeus, 1758) | Apollo |
| PIEF | RIDAE | |
| 2.7 | 1750) | DI 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 |
| 37 | Aporia crataegi (Linnaeus, 1758) | Black-veined White |
| 38 | Pieris brassicae (Linnaeus, 1758) | Large White |
| 39 | Pieris napi (Linnaeus, 1758) | Green-veined White |
| 40 | Pieris rapae (Linnaeus, 1758) | Small White |
| 41 | Pieris mannii (Mayer, 1851) | Southern Small White |
| 42 | Pieris ergane (Geyer, 1828) | Mountain Small White |
| 43 | Pontia daplidice (Linnaeus, 1758) | Bath White |
| 44 | Pontia callidice (Hübner, 1800) | Peak White |
| 45 | Euchloe simplonia (Freyer, 1829) | Mountain Dappled White |
| 46 | Euchloe crameri (Butler, 1869) | Western Dappled White |
| 47 | Euchloe tagis (Hübner, 1804) | Portuguese Dappled White |
| 48 | Euchloe bazae (Fabiano, 1993) | Greenish Black-tip |
| 49 | Euchloe belemia (Esper, 1800) | Green-striped White |

| 50 | Colotis evagore (Klug, 1829) | Desert Orange-tip |
|----------|--|-----------------------------|
| 51 | Anthocharis cardamines (Linnaeus, 1758) | Orange-tip |
| 52 | Anthocharis euphenoides (Staudinger, 1869) | Provence Orange-tip |
| 53 | Zegris eupheme (Esper, 1804) | Sooty Orange-tip |
| 54 | Colias phicomone (Esper, 1780) | Mountain Clouded Yellow |
| 55 | Colias crocea (Geoffroy, 1785) | Clouded Yellow |
| 56 | Colias alfacariensis (Ribbe, 1905) | Berger's Clouded Yellow |
| 57 | Gonepteryx rhamni (Linnaeus, 1758) | Brimstone |
| 58 | Gonepteryx cleopatra (Linnaeus, 1767) | Cleopatra |
| 59 | Leptidea sinapis (Linnaeus, 1758) | Wood White |
| 60 | Leptidea reali (Reissinger, 1990) | Real's Wood White |
| LYC | AENIDAE | |
| 61 | Thecla betulae (Linnaeus, 1758) | Brown Hairstreak |
| 62 | Favonius quercus (Linnaeus, 1758) | Purple Hairstreak |
| 63 | Laeosopis roboris (Esper, 1793) | Spanish Purple Hairstreak |
| 64 | Satyrium acaciae (Fabricius, 1787) | Sloe Hairstreak |
| 65 | Satyrium ilicis (Esper, 1779) | Ilex Hairstreak |
| 66 | Satyrium esculi (Hübner, 1804) | False Ilex Hairstreak |
| 67 | Satyrium spini (Denis & Schiffermüller, 1775) | Blue-spot Hairstreak |
| 68 | Satyrium pruni (Linnaeus, 1758) | Black Hairstreak |
| 69 | Satyrium w-album (Knoch, 1782) | White-letter Hairstreak |
| 70 | Callophrys rubi (Linnaeus, 1758) | Green Hairstreak |
| 71 | Callophrys avis (Chapman, 1909) | Chapman's Green Hairstreak |
| 72 | Tomares ballus (Fabricius, 1787) | Provence Hairstreak |
| 73 | Lycaena helle (Denis & Schiffermüller, 1775) | Violet Copper |
| 74 | Lycaena phlaeas (Linnaeus, 1761) | Small Copper |
| 75 | Lycaena tityrus (Poda, 1761) | Sooty Copper |
| 76 | Lycaena bleusei (Oberthür, 1884) | Iberian Copper |
| 77 | Lycaena virgaureae (Linnaeus, 1758) | Scarce Copper |
| 78 | Lycaena alciphron (Rottemburg, 1775) | Purple-shot Copper |
| 79 | Lycaena hippothoe (Linnaeus, 1760) | Purple-edged Copper |
| 80 | Lampides boeticus (Linnaeus, 1760) | Long-tailed Blue |
| 81 | | |
| 82 | Leptotes pirithous (Linnaeus, 1767) | Lang's Short-tailed Blue |
| 83 | Cacyreus marshalli (Butler, 1898) | Geranium Bronze |
| | Zizeeria knysna (Trimen, 1862) | African Grass Blue |
| 84 85 | Taracus theophrastus (Fabricius, 1793) | Common Tiger Blue |
| | Azanus jesous (Guerin-Méneville, 1849) | African Babul Blue |
| 86 | Cupido argiades (Pallas, 1771) | Short-tailed Blue |
| 87 88 | Cupido alcetas (Hoffmannsegg, 1804) | Provençal Short-tailed Blue |
| | Cupido minimus (Fuessly, 1775) | Small Blue |
| 89 | Cupido osiris (Meigen, 1829) | Osiris Blue |
| 90 | Cupido lorquinii (Herrich-Schaffer, 1850) | Lorquin's Blue |
| 91 | Celastrina argiolas (Linnaeus, 1758) | Holly Blue |
| 92 | Glaucopsyche alexis (Poda, 1761) | Green-underside Blue |
| 93 | Glaucopsyche melanops (Boisduval, 1828) | Black-eyed Blue |
| 94 | Iolana debilitata (Schultz, 1905) | Spanish Iolas Blue |
| 95 | Phengaris alcon (Denis & Schiffermüller, 1775) | Alcon Blue |
| 96 | Phengaris arion (Linnaeus, 1758) | Large Blue |
| 97 | Phengaris nausithaus (Bergsträsser, 1779) | Dusky Large Blue |
| 98 | Pseudophilotes baton (Bergsträsser, 1779) | Baton Blue |
| 99 | Pseudophilotes abencerragus (Pierret, 1837) | False Baton Blue |
| 100 | Scolantides orion (Pallas, 1771) | Chequered Blue |
| 101 | Plebejus argus (Linnaeus, 1758) | Silver-studded Blue |
| | | |

LYCAENIDAE continued

| 102 | Plebejus idas (Linnaeus, 1761) | Idas Blue |
|------|---|---------------------------|
| 103 | Kretania hesperica (Rambur, 1839) | Spanish Zephyr Blue |
| 104 | Agriades pyrenaicus (Boisduval, 1840) | Gavarnie Blue |
| 105 | Agriades glandon (Prunner, 1798) | Glandon Blue |
| 106 | Agriades zullichi (Hemming, 1933) | Zullichi's Blue |
| 107 | Aricia cramera (Eschscholtz, 1821) | Southern Brown Argus |
| 108 | Aricia agestis (Denis and Schiffermüller, 1775) | Brown Argus |
| 109 | Aricia artaxerxes (Fabricius, 1793) | Mountain Argus |
| 110 | Aricia morronensis (Ribbe, 1910) | Spanish Argus |
| 111 | Aricia nicias (Meigen, 1829) | Geranium Argus |
| 112 | Eumedonia eumedon (Esper, 1780) | Silvery Argus |
| 113 | Cyaniris semiargus (Rottemburg, 1775) | Mazarine Blue |
| 114 | Polyommatus damon (Denis & Schiffermüller, 1775) | Damon Blue |
| 115 | Polyommatus fulgens (Sagarra, 1925) | Spanish Furry Blue |
| 116 | Polyommatus ripartii (Freyer, 1830) | Ripart's Anomolous Blue |
| 117 | Polyommatus violetae (Gomez Bustilio & Borrego, 1979) | Andalucian Anomolous Blue |
| 118 | Polyommatus fabressei (Oberthür, 1910) | Oberthur's Anomolous Blue |
| 119 | Polyommatus escheri (Hübner, 1823) | Escher's Blue |
| 120 | Polyommatus amandus (Schneider, 1792) | Amanda's Blue |
| 121 | Polyommatus thersites (Cantener, 1835) | Chapman's Blue |
| 122 | Polyommatus icarus (Rottemburg, 1775) | Common Blue |
| 123 | Polyommatus celina (Astaut, 1879) | Cryptic Common Blue |
| 124 | Polyommatus eros (Ochsenheimer, 1808) | Eros Blue |
| 125 | Polyommatus dorylas (Denis & Schiffermüller, 1775) | Turquoise Blue |
| 126 | Polyommatus golgus (Hübner, 1813) | Nevada Blue |
| 127 | Polyommatus nivescens (Keferstein, 1851) | Mother of Pearl Blue |
| 128 | Polyommatus daphnis (Denis & Schiffermüller, 1775) | Meleager's Blue |
| 129 | Lysandra coridon (Poda, 1761) | Chalk-hill Blue |
| 130 | Lysandra caelestissima (Verity, 1921) | Azure Chalk-hill Blue |
| 131 | Lysandra hispana (Herrich-Schäffer, 1851) | Provence Chalk-hill Blue |
| 132 | Lysandra albicans (Herrich-Schäffer, 1851) | Spanish Chalk-hill Blue |
| 133 | Lysandra bellargus (Rottemburg, 1775) | Adonis Blue |
| | | |
| RIOI | DINIDAE | |
| | | |
| 134 | Hamearis lucina (Linnaeus, 1758) | Duke of Burgundy |
| | | |
| NYM | MPHALIDAE | |
| | | |
| 135 | Libythea celtis (Laicharting, 1782) | Nettle-tree Butterfly |
| 136 | Charaxes jasius (Linnaeus, 1767) | Two-tailed Pasha |
| 137 | Apatura iris (Linnaeus, 1758) | Purple Emperor |
| 138 | Apatura ilia (Denis & Schiffermüller, 1775) | Lesser Purple Emperor |
| 139 | Limenitis camilla (Linnaeus, 1764) | White Admiral |
| 140 | Limenitis reducta (Staudinger, 1901) | Southern White Admiral |
| 141 | Nymphalis antiopa (Linnaeus, 1758) | Camberwell Beauty |
| 142 | Nymphalis polychloros (Linnaeus, 1758) | Large Tortoiseshell |
| 143 | Vanessa atalanta (Linnaeus, 1758) | Red Admiral |
| 144 | Vanessa cardui (Linnaeus, 1758) | Painted Lady |
| 145 | Vanessa virginiensis (Drury, 1773) | American Painted Lady |
| 146 | Aglais io (Linnaeus, 1758) | Peacock |
| 147 | Aglais urticae (Linnaeus, 1758) | Small Tortoiseshell |
| 148 | Polygonnia c-album (Linnaeus, 1758) | Comma |
| 149 | Araschnia levana (Linnaeus, 1758) | Map |

| 150 | Argynnis pandora (Denis & Schiffermüller, 1775) | Cardinal |
|-----|--|---|
| 151 | Argynnis paphia (Linnaeus, 1758) | Silver-washed Fritillary |
| 152 | Fabriciana adippe (Denis & Sciffermüller, 1775) | High Brown Fritillary |
| 153 | Fabriciana niobe (Linnaeus, 1758) | Niobe Fritillary |
| 154 | Speyeria aglaja (Linnaeus, 1758) | Dark-green Fritillary |
| 155 | Issoria lathonia (Linnaeus, 1758) | Queen of Spain Fritillary |
| 156 | Brenthis hectate (Denis & Schiffermüller, 1775) | Twin-spot Fritillary |
| 157 | Brenthis daphne (Denis & Schiffermüller, 1775) | Marbled Fritillary |
| 158 | Brenthis ino (Rottemburg, 1775) | Lesser Marbled Fritillary |
| 159 | Boloria pales (Denis & Schiffermüller, 1775) | Shepherd's Fritillary |
| 160 | 1 , , , , | 1 |
| 161 | Boloria napaea (Hoffmannsegg, 1804) | Mountain Fritillary |
| 162 | Boloria eunomia (Esper, 1800) | Bog Fritillary |
| 163 | Boloria selene (Denis & Schiffermüller, 1775) | Small Pearl-bordered Fritillary |
| | Boloria euphrosyne (Linnaeus, 1758) | Pearl-bordered Fritillary |
| 164 | Boloria dia (Linnaeus, 1767) | Weaver's Fritillary (Violet Fritillary) |
| 165 | Melitaea cinxia (Linnaeus, 1758) | Glanville Fritillary |
| 166 | Melitaea phoebe (Denis & Schiffermüller, 1775) | Knapweed Fritillary |
| 167 | Melitaea aetherie (Hübner, 1826) | Aetherie Fritillary |
| 168 | Melitaea didyma (Esper, 1778) | Spotted Fritillary |
| 169 | Melitaea trivia (Denis and Schiffermüller, 1775) | Lesser Spotted Fritillary |
| 170 | Melitaea diamina (Lang, 1789) | False Heath Fritillary |
| 171 | Melitaea celadussa (Fruhstorfer, 1910) | Southern Heath Fritillary |
| 172 | Melitaea deione (Geyer, 1832) | Provençal Fritillary |
| 173 | Melitaea parthenoides (Keferstein, 1851) | Meadow Fritillary |
| 174 | Euphydryas aurinia (Rottemburg, 1775) | Marsh Fritillary |
| 175 | Euphydryas desfontainii (Godart, 1819) | Spanish Fritillary |
| 176 | 161 | N. 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 |
| 176 | Melanargia galathea (Linnaeus, 1758) | Marbled White |
| 177 | Melanargia lachesis (Hübner, 1790) | Iberian Marbled White |
| 178 | Melanargia russiae (Esper, 1783) | Esper's Marbled White |
| 179 | Melanargia occitanica (Esper, 1793) | Western Marbled White |
| 180 | Melanargia ines (Hoffmannsegg, 1804) | Spanish Marbled White |
| 181 | Hipparchia fagi (Scopoli, 1763) | Woodland Grayling |
| 182 | Hipparchia hermione (Linnaeus, 1764) | Rock Grayling |
| 183 | Hipparchia semele (Linnaeus, 1758) | , , |
| 184 | Hipparchia fidia (Linnaeus, 1767) | Striped Grayling |
| 185 | Hipparchia statalinus (Hufnagel, 1766) | Tree Grayling |
| 186 | Pseudochazara williamsi (Romei, 1927) | |
| 187 | Chazara briseis (Linnaeus, 1764) | Hermit |
| 188 | Chazara prieuri (Pierret, 1837) | |
| 189 | Satyrus actaea (Esper, 1781) | |
| 190 | Satyrus ferula (Fabricius, 1793) | Great Sooty Satyr |
| 191 | Minois dryas (Scopoli, 1763) | Dryad |
| 192 | Brintesia circe (Fabricius, 1775) | Great Banded Grayling |
| 193 | Arethusana arethusa (Denis & Schiffermüller, 1775) | |
| 194 | Erebia euryale (Esper, 1805) | Large Ringlet |
| 195 | Erebia manto (Denis & Schiffermüller, 1775) | Yellow-spotted Ringlet |
| 196 | Erebia epiphron (Knoch, 1783) | Mountain Ringlet |
| 197 | Erebia gorge (Hübner, 1804) | Silky Ringlet |
| 198 | Erebia gorgone (Boisduval, 1833) | Gavarnie Ringlet |
| 199 | Erebia triarius (Prunner, 1798) | de Prunner's Ringlet |
| 200 | Erebia epistygne (Hübner, 1824) | Spring Ringlet |
| 201 | Erebia arvenensis (Oberthür, 1908) | Western Brassy Ringlet |
| 202 | Erebia rondoui (Oberthür, 1908) | |
| 203 | Erebia hispania (Butler, 1868) | Spanish Brassy Ringlet |
| | | |

NYMPHALIDAE continued

| 204 | Erebia lefebvrei (Boisduval, 1828) | Lefebvre's Ringlet |
|-----|--|-----------------------|
| 205 | Erebia pronoe (Esper, 1780) | Water Ringlet |
| 206 | Erebia oeme (Hübner, 1840) | Bright-eyed Ringlet |
| 207 | Erebia zapateri (Oberthür, 1875) | Zapater's Ringlet |
| 208 | Erebia neoridas (Boisduval, 1829) | Autumn Ringlet |
| 209 | Erebia meolans (Prunner, 1798) | Piedmont Ringlet |
| 210 | Erebia palarica (Chapman, 1905) | Chapman's Ringlet |
| 211 | Erebia pandrose (Borkhausen, 1788) | Dewy Ringlet |
| 212 | Erebia sthennyo (Graslin, 1850) | False Dewy Ringlet |
| 213 | Aphantopus hyperantus (Linnaeus, 1758) | Ringlet |
| 214 | Maniola jurtina (Linnaeus, 1758) | Meadow Brown |
| 215 | Hyponophele lycaon (Rottemburg, 1775) | Dusky Meadow Brown |
| 216 | Hyponephele lupina (Costa, 1836) | Oriental Meadow Brown |
| 217 | Pyronia tithonus (Linnaeus, 1767) | Gatekeeper |
| 218 | Pyronia cecilia (Vallantin, 1894) | Southern Gatekeeper |
| 219 | Pyronia bathseba (Fabricius, 1793) | Spanish Gatekeeper |
| 220 | Coenonympha pamphilus (Linnaeus, 1758) | Small Heath |
| 221 | Coenonympha dorus (Esper, 1782) | Dusky Heath |
| 222 | Coenonympha arcania (Linnaeus, 1761) | Pearly Heath |
| 223 | Coenonympha glycerion (Borkhausen, 1788) | Chestnut Heath |
| 224 | Pararge aegeria (Linnaeus, 1758) | Speckled Wood |
| 225 | Lasiommata megera (Linnaeus, 1767) | Wall Brown |
| 226 | Lasiommata maera (Linnaeus, 1758) | Large Wall Brown |
| 227 | Lasiommata petropolitana (Fabricius, 1787) | Northern Wall Brown |
| 228 | Lopinga achine (Scopoli, 1763) | Woodland Brown |
| 229 | Danaus chrysippus (Linnaeus, 1758) | Plain Tiger |
| 230 | Danaus plexippus (Linnaeus, 1758) | Monarch |

Notes: *Gegenes pumilio* is not included in this list. Although it has been recorded from the Balearic Island of Mallorca, its presence on the Peninsula appears never to have been verified.

Some genera, e.g., *Euchloe, Callophrys, Pseudophilotes, Melitaea* and *Hipparchia* and the subgenus *Agrodiaetus* of the genus *Polyommatus* are still in need of revision, and this will lead to further changes in the taxonomy in the future (*An Updated checklist of the European Butterflies*, Wiemers et al., 2018).



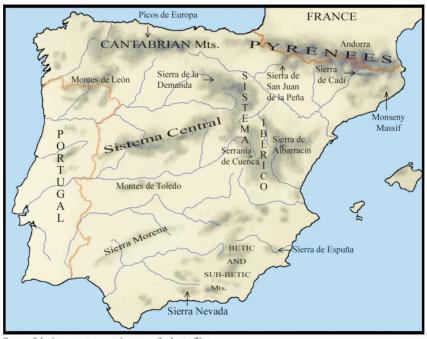
Sierra de Caspe, Zaragoza



Map showing Spanish Provinces and autonomous regions



part of the east Pyrenees, with the Sierra del Cadí in the background



Some of the important mountain ranges for butterflies

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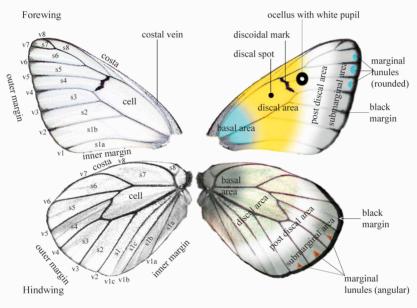
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Terms used in the text to describe a butterfly's wings



v = vein

s = space