

Butterflies & Botany of the Eastern French Pyrenees

23 - 30 May 2019



Greenwings Wildlife Holidays

Tel: 01473 254658 Web: www.greenwings.co.uk Email: enquiries@greenwings.co.uk

Butterflies & Botany of the Eastern French Pyrenees 2019 Holiday Report 23 May - 30 May

Introduction

This butterfly and botanical holiday was based in the foothills of Mt Canigou, the sacred mountain for Catalonians on both sides of the French - Spanish border. Rising to 2784 metres it dominates the eastern end of the Pyrenees near the French border with Spain and Andorra. The area is often referred to as French Catalonia and a minority of the population still speak the Catalan dialect. The dominant climatic influence of the Eastern Pyrenees is the Mediterranean and so the climate is warmer and the days sunnier than elsewhere in the Pyrenees. The area boasts a wide variety of habitats, including Mediterranean Garrigue, Holm, Downy Oak and Beech woods, schist and calcareous grasslands and alpine screes, all of which are home to a wealth of interesting butterflies and plants. The holiday was led by David Moore and Yiannis Christofides. The hotel used was the same one as in 2017 and 2018, in the town of Prades, although it is now part of the Best Western chain rather than privately run. The guests joining us were John & Isla, Greg & Valerie, Dave P, Dave W, Andrew, Trevor, Roy, Colin and Paul.

What follows is a daily diary for the week, followed by gallery and species lists.

- Day 1, Thursday 23rd May: Arrival at Perpignan airport, transfer to hotel and visit to Py.
- Day 2, Friday 24th May: Beyond Mosset, Col de Jau
- Day 3, Saturday 25th May: Força Real and Sournia
- Day 4, Sunday 26th May: Sournia and quarries
- Day 5, Monday 27th May: Porté-Puymorens, Eyne, Llo & Caranças Gorge
- Day 6, Tuesday 28th May: Tour de Goa, Conat
- Day 7, Wednesday 29th May: Col de Jau, Aunat (Aude Department)
- Day 8, Thursday 30th May: Return to UK.



Day 1, Thursday 23rd May, arrival at Perpignan and visit to Py.

Our guests came through the gates at Perpignan Airport without any serious delays and so once everyone had got acquainted, we made the 50 minute drive to our hotel. After unloading our belongings and a quick chat about the week's programme, provisions were purchased from the supermarket across the road and we went out in search of butterflies. The weather was almost perfect, around 24°c with minimal cloud cover, and by 1pm the group had arrived at the first stop, a series of grassy meadows and roadside verges just prior to the village of Py.

Promisingly, the first butterfly seen opposite the vans was a Clouded Apollo, which was happily nectaring on a brassica. The guide then spotted a scruffy Nettle Tree Butterfly, perching on a leaf tip several feet up in a tree. This was the first time this species had been recorded on this tour. Soon after, two different Camberwell Beauties were observed flying at speed. Dave P managed to catch up with one at the river further along the track.



the roadside.

Provençal and Glanville were the commonest Fritillaries, with the former looking particularly fresh. As we ascended in altitude, a few Queen of Spain Fritillaries were noted, although the highlight was undoubtedly the sight of several Apollos floating around the steep rock faces which they so favour. In the gully at the bottom of the slope were numerous Adonis Blues, whilst a gleaming Spotted Fritillary was nectaring contentedly.



Several delightful Provence Orange Tips were seen, along with the Orange Tips we're familiar with in the UK. Pleasingly, several came to rest and everyone was able to get some images. Safflower Skipper, Tufted Marbled Skipper and Large Grizzled Skipper were all recorded, whilst many Lycaenids were present, such as Sooty Copper, Green Underside Blue & Adonis Blue. Dave W also brought the group's attention to a couple of Mazarine Blues taking minerals from damp soil by



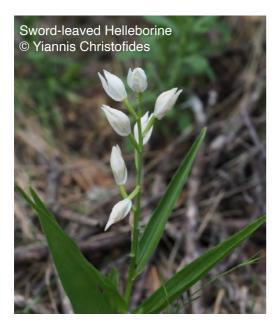
One last stop at lower levels was productive in the sense that butterflies became partly becalmed due to the increasing cloud. This allowed close approaches to normally skittish species such as De Prunner's Ringlet and Provence Orange Tip.

The first night's count showed that 45 butterfly species had been recorded in a single afternoon, which was very encouraging.

The evening meal was a buffet affair, and most of the group retired to bed fairly early given how long a day they'd had, with the flight departing Stansted prior to 7am!

Day 2, Friday 24th May, Beyond Mosset to Col de Jau

From a butterfly perspective, this was a blank day. Grey skies, light rain and high winds were on the menu all day, so it was decided to visit a site which is particularly good for flowers to allow the botanists to indulge themselves.



Beyond the attractive town of Mosset is a series of grassy meadows, where many orchids grow, although the most notable sighting was an amphibian, found by Greg nonchalantly crossing the damp road surface. This was a striking looking creature, black with vivid yellow stripes – a Fire Salamander.

A brief stop was made at the top of the 1,700m col, although warm clothing was required as temperatures in this exposed spot were a mere 8c!!

Lunch was taken on the north side of the col, where Sword-Leaved Helleborines were growing.

Due to the poor weather persisting, the group returned to Prades rather earlier than is normal,

with hopes that the following day would see more benign conditions.

Day 3, Saturday 25th May, Força Real and Sournia

There was more frustration this morning, as the grey skies refused to break up, meaning that the visit to Força Real, a 500m lookout post a mere 20 minute drive from Perpignan, was again bereft of butterfly activity, although the botanists in the group got to see some of the plant species more associated with the Mediterranean habitat, and everyone was able to enjoy the views from the hermitage at the summit.

The brightest area of sky seemed to be to the north west, so it was decided that a visit to the quarry at nearby Sournia might provide some action.

Upon arrival, things did improve, but they were still borderline and butterflies were hard to come by. In spite of that, a Southern Small White was seen and identified, whilst certain members of the group got to see Spanish Gatekeeper. A small number of Turquoise Blues were also seen, but the most welcome newcomer was Western Marbled White, probably the most striking of all the European *melanargia* genus.





Day 4, Sunday 26th May, Sournia and the three quarries

After two frustrating days, the group were eager to depart early in pleasant sunshine although temperatures were still on the cool side. By just gone 10am, everyone was on the lower track of the south-facing hillside at Sournia, and although things were slow given the temperatures, butterflies were still active, and several notable orchids were seen too.



The week's first Spanish Festoon was recorded, and other desirables were plenty more Western Marbled Whites, Swallowtail, Berger's Clouded Yellow & Chequered Blue.

As time passed, a plume of cloud developed which seemingly covered the area directly beneath which the group were exploring, but nowhere else! The guide decided to move 1km west to the small quarry but this cloud refused to shift. Lunch was taken, and things started to look worse when a series of showers passed over, but

this seemed to clear the air; the sun returned and the group headed on to the main quarry.

A Southern White Admiral was spotted in the gully by the bridge, along with a couple of Holly Blues. Finally, the *beckeri* form of Marsh Fritillary showed itself, with its beautiful brick red appearance and its unusual tendency to behave like a Duke of Burgundy; perching on leading leaf tips and intercepting other passing insects.

In the main quarry, Turquoise, Adonis, Chapman's and Chequered Blues were easy to find, whilst Dave P encountered the only Cardinal of the week.

In the greener area at the top of the quarry, Iberian Scarce Swallowtails were recorded, along with the week's first Berger's Clouded Yellows. In fact, this sheltered area was teeming with butterflies, as if they were all eager to take cover from the strong wind



that followed the group around for much of the week.

Both Cleopatra and Bath White were seen in this area, whilst Large Wall and Speckled Wood were around too albeit in small numbers.



Sadly, the extremely rare Spanish Fritillary was not encountered, but the group had a further satisfying half hour or so at a smaller quarry further up the main road. A patch of thyme was attracting Queen of Spain Fritillaries and Western Marbled Whites, and it was nice to finally bask in warm, sunny conditions after a frustrating morning preceded by two cloudy, damp days.

Day 5, Monday 27th May, Eyne, Porté-Puymorens, Llo and Caranças Gorge

After a lacklustre couple of days, Monday finally came up trumps and provided redemption. It was a busy day, with a 9am start seeing the group arrive at a damp site in the village of Eyne at 10.15. At 1,600m, it was cool at around 13c, and the vegetation was

reminiscent of that seen in the UK at the beginning of April, with dandelions abounding and the leaves on the trees yet to fully unfurl.

The guide swept the lower, boggy field, with Dave W on patrol too, in order to see if any Violet Coppers were about. Sadly, there were not, but the group did encounter the altitude form of Marsh Fritillary, along with Dingy Skippers, Green Hairstreaks, De Prunner's Ringlets and some beautiful wild narcissi.

Time then for the 40 minute drive towards the Andorran border, and thankfully two male Violet Coppers were seen in the boggy terrain in the wayleaf area beneath the power lines at Porté-Puymorens. Fresh Pearl Bordered Fritillaries were





recorded here too, and a walk into the field on the other side of the road saw the week's first Meadow Fritillary, along with some fine Elderflower Orchids.

Returning to the plateau around Llo, another Camberwell Beauty was seen, along with some striking gentians and a handful of Dukes of Burgundy, however butterfly numbers were rather disappointing as cloud had encroached once again, forcing the guide to suggest moving on to Caranças Gorge further down the valley.

The drive was spectacular, with excellent views of the surrounding mountains, not to mention the feats of human engineering along the railway track upon which the *petit train jaune* runs.

Guests were delighted to have a sit down and a drink at the gorge, and whilst there were no Camberwells this afternoon at this site, a few Provençal Short Tailed Blues were observed, meaning that in spite of indifferent weather a total of 67 species had been recorded by the end of Day 5.

Day 6, Tuesday 28th May, Tour de Goa, Conat

Although the sun had returned this morning, the wind was near gale force outside the hotel, so it was something of a surprise when the group emerged into becalmed conditions at 1,100m on Tour de Goa, a mere half hour drive away.





There are two tracks to choose between here, and a walk down the lower track provided a few Green Hairstreaks but not much else, as it was still largely in the morning shade, although a praying mantis was a welcome diversion from the butterflies.

So, most of the group walked up to the tower at the top of the uphill track, from where splendid panoramic views were enjoyed. Wall Browns were numerous, and the group finally realised where most of the Iberian Scarce Swallowtails were this week – hilltopping!! Quite a few were zooming about, and many settled nicely on the as yet unfurled cistus buds.A real highlight was the presence at the top of the hill of the week's only Purple-Shot Copper. This glorious insect was tricky to photograph, however, as he was seemingly intent on fighting the many Wall Browns that encroached into his territory. In the afternoon, a trip to the roadside meadows near the village of Conat was undertaken. Sadly, clouds increased as time wore on, but the week's first Pearly Heath was spotted flying amongst the scrub, while the only False Heath Fritillary of the trip was seen nectaring at the roadside. Dave P came up trumps with a mating pair of Beckeri Marsh Fritillaries, whilst a couple of fresh Knapweed Fritillaries were also recorded.

Day 7, Wednesday 29th May, Col de Jau, Aunat (Aude Department)



The return of the sunshine allowed the group to try and catch up with time lost earlier in the trip due to cloud and rain. An early start on the road past Mosset towards Col de Jau saw everybody arrive at a series of roadside meadows just after 10am, and it wasn't long before a new species for the week, Olive Skipper, was located.

Whilst temperatures were cool, the late May sunshine was sufficient to get butterflies active, and Colin spotted a blue butterfly feasting on tufted vetch by the roadside which turned out to be a beautiful, fresh Amanda's Blue, one of the most stunning Lycaenids of the region.

Soon after, another beautiful Lycaenid was seen – a male Purple Edged Copper, which posed well for images as is usual with this group of butterflies.

With the weather holding, the guide decided to risk the longish drive into the Aude department, and this turned out to be possibly the highlight of the week. Whilst taking lunch at the roadside, Silver Studded Blues were spotted, whilst Andrew had the pleasure of a persistent male Amanda's Blue on his hand, no doubt attracted by the fruit he was eating for lunch!

Not long afterwards, Greg spotted a Chequered





Skipper taking minerals from the bank at the roadside. Two or three other individuals were seen nearby to the delight of the group.

Then, Roy informed the guide that he had seen a Map Butterfly, and after returning to the spot where it had first been observed, it wasn't long before it was seen again along with a couple of other individuals, one of which was a female in good condition which was fluttering round the nettles inspecting the LHP with a view to ovipositing.

The guide then alerted those nearby to an *erebia* that flew by. It was clear in flight that this was not a De Prunner's Ringlet, which is usually the only member of this group on the wing in this area at the end of May. Thankfully, the insect settled briefly and was identified as the week's only Bright-Eyed Ringlet.

The journey into the Aude had definitely been worthwhile, but there was still time for the group to split into two, with the



botanists returning to col de Jau and the butterflyers heading to Força Real for a second time. In spite of very windy conditions, Spanish Gatekeepers and Western Marbled Whites were seen on the lower slopes, whilst another first for the trip was notched up with a handful of Lulworth Skippers sighted. Usually, on the last day of this tour new species are hard to come by, but this final day had seen eight added to the tally, which finished up a respectable 81.

Footnote

The total number of butterfly species seen was ten better than in 2018, although it fell short of the incredible 98 on the 2017 trip, which was warm and sunny throughout. In spite of sometimes difficult weather conditions and a retarded season (particularly at altitude), all the iconics were seen except for Spanish Fritillary, which is always a bit of a frustration to find, being so rare in this region. A fantastic array of plants was also seen which was appreciated by the botanists in the group.

Thankfully, the return journey to the airport was quiet traffic-wise and problem free, with it being a Bank Holiday due to Ascension Day, and the flight back to Stansted took off to schedule the end to a highly satisfactory week in this beautiful, wildlife-rich area of south west France.

Acknowledgements. Greenwings would like to thank all the guests on this trip for their convivial company throughout the week. The hotel staff did a great job ensuring everybody was comfortable and whilst the evening main course tended to be a little unimaginative, the breakfast offerings were exceptionally diverse and guests were able to choose their own lunches in the handily located supermarket opposite the hotel.

This was the second year in succession that a late season adversely affected butterfly numbers, and it was disappointing that a day and a half was lost due to inclement weather. The schedule had to be kept flexible due to the changing forecasts, but in the end all the advertised sites were visited bar one, and when cloud and light rain DID interfere, it gave everyone the opportunity to study the fabulous array of plant species that grow in this region, particularly the wonderful orchids.

	Eastern Fren 2019 specie	-	Thu 23rd May	Fri 24th May	Sat 25th May	Sun 26th May	Mon 27th May	Tue 28th May	Wed 29th May
	Butte	rflies	day 1	day 2	day 3	day 4	day 5	day 6	Day 7
	Apollos & Swallowtails	Family Papilionidae							
1	Swallowtail	Papilio machaon	~			~	~	~	
2	Iberian Scarce Swallowtail	Iphiclides feisthamelii	~			~		~	
3	Spanish Festoon	Zerynthia rumina				~		~	
4	Apollo	Parnassius apollo	~				~	~	
5	Clouded Apollo	Parnassius mnemosyne	V						~
	Whites & Yellows	Family Pieridae							
6	Black-veined White	Aporia crataegi	V			~		~	
7	Large White	Pieris brassicae	~			~	~		
8	Small White	Pieris rapae	~			~	V	~	
9	Southern small white	Pieris mannii			~	~			
10	Green-veined White	Pieris napi	~			~	V	~	~
11	Bath White	Pontia daplidice				•		~	
	Western Dappled White	Euchloe crameri							
12	Orange Tip	Anthocharis cardamines	~				V	~	~
13	Provence Orange Tip	Anthocharis euphinoides	V					~	V
14	Berger's Clouded Yellow	Colias alfacariensis				~	~	~	
15	Clouded Yellow	Colias crocea	~			~	~	~	~
16	Brimstone	Gonepteryx rhamni	~			•	V	~	~
17	Cleopatra	Gonepteryx cleopatra				~			
18	Wood White	Leptidea sinapis	~				~	~	~
	Blues, Coppers & Hairstreaks	Family Lycaenidae							
	Sloe Hairstreak	Satyrium acaciae							
	False ilex hairstreak	Satyrium esculi							
	Blue-spot Hairstreak	Satyrium spini							
19	Green Hairstreak	Callophrys rubi	~			•	~	~	
20	Violet Copper	Lycaena helle					~		
21	Small Copper	Lycaena phlaeas	~			~		~	

	Eastern Fren 2019 specie		Thu 23rd May	Fri 24th May	Sat 25th May	Sun 26th May	Mon 27th May	Tue 28th May	Wed 29th May
	Butte	rflies	day 1	day 2	day 3	day 4	day 5	day 6	Day 7
22	Sooty Copper	Lycaena tityrus	~				~		~
23	Purple-shot Copper	Lycaena alciphron						~	
24	Purple-edged Copper	Lycaena hippothoe							~
25	Lang's Short-tailed Blue	Leptotes pirithous						~	
26	Provençal Short Tailed Blue	Cupido alcetas					~	~	~
27	Holly Blue	Celastrina argiolus				•		~	
28	Small Blue	Cupido minimus	~			~	~	•	~
	Osiris Blue	Cupido osiris							
29	Green-underside Blue	Glaucopschyche alexis	~			~	~	~	~
30	Chequered Blue	Scolitantides orion				~	~	~	
31	Silver-studded Blue	Plebejus argus							~
	Geranium Argus	Aricia eumedon							
32	Brown Argus	Aricia agestis	~			•	~	~	
33	Mazarine Blue	Cyaniris semiargus	~		~	•	~		~
	Escher's Blue	Polyommatus escheri							
34	Amanda's Blue	Polyommatus amandus							~
35	Chapman's Blue	Polyommatus thersites				•			
36	Turquoise Blue	Polyommatus dorylas			~	~	~		
37	Adonis Blue	Polyommatus bellargus	~			~	~	~	
38	Common Blue	Polyommatus icarus	~			~	~	~	~
	Aristocrats and Browns	Family Nymphalidae							
39	Duke Of Burgundy	Hamearis lucina	~				V	•	
40	Nettle-Tree Butterfly	Libythea celtis	~					•	
41	Southern White Admiral	Limenitis reducta				~		•	
	White Admiral	Limenitis camilla							
42	Camberwell beauty	Nymphalis antiopa	~				V	•	
43	Peacock	Inachis io	~						
44	Small Tortoiseshell	Aglais urticae	~			~	~	~	~
	Large Tortoiseshell	Nymphalis polychloros							

	Eastern Fren 2019 specie	-	Thu 23rd May	Fri 24th May	Sat 25th May	Sun 26th May	Mon 27th May	Tue 28th May	Wed 29th May
	Butte	rflies	day 1	day 2	day 3	day 4	day 5	day 6	Day 7
45	Red Admiral	Vanessa atalanta				~	~	~	~
46	Map Butterfly	Araschnia levana							•
47	Painted Lady	Vanessa cardui				~		~	
48	Queen of Spain Fritillary	Issoria lathonia	~			~	~	~	•
49	Comma	Polygonia c-album	~					~	
50	Cardinal Fritillary	Argynnis pandora				~			
	Dark Green Fritillary	Argynnis aglaja							
	High Brown Fritillary	Argynnis adippe							
	Marbled Fritillary	Brenthis daphne							
	Lesser Marbled Fritillary	Brenthis ino							
51	Pearl-bordered Fritillary	Boloria euphrosyne					~		~
52	Weaver's Fritillary	Boloria dia	~				~	~	
53	Glanville Fritillary	Melitaea cinxia	~		~	~	~	~	~
54	Knapweed Fritillary	Melitaea phoebe	~			~		~	~
55	False Heath Fritillary	Melitaea diamina						~	
56	Spotted Fritillary	Melitaea didyma	~			~		~	~
57	Heath Fritillary	Melitaea athalia				~			
58	Provençal Fritillary	Mellicta dejone	~			~		~	
59	Meadow Fritillary	Melitaea parthenoides					~		~
	Spanish Fritillary	Euphydryas desfontainii							
60	Marsh Fritillary	Euphydryas aurinia				~	~	~	
	Iberian Marbled White	Melanargia Lachesis							
61	Western Marbled White	Melanargia occitanica			~	~			~
	Grayling	Hipparchia semele							
62	De Prunner's Ringlet	Erebia triaria	V				V	~	
63	Bright-eyed Ringlet	Erebia oeme							~
64	Meadow Brown	Maniola jurtina	V		~	~			
65	Spanish Gatekeeper	Pyronia bathseba				~			~
66	Small Heath	Coenonympha pamphilus	~		~	~	~		~

	Eastern Fren 2019 specie	•	Thu 23rd May	Fri 24th May	Sat 25th May	Sun 26th May	Mon 27th May	Tue 28th May	Wed 29th May
	Butte	rflies	day 1	day 2	day 3	day 4	day 5	day 6	Day 7
	Dusky Heath	Coenonympha dorus							
67	Pearly Heath	Coenonympha arcania						~	~
68	Speckled Wood	Pararge aegeria	~		~	~	~	~	~
69	Wall	Lasiommata megera	~		~	•	~	~	~
70	Large Wall	Lasiommata maera	~			~			~
	Skippers	Family Hesperiidae							
71	Southern grizzled Skipper	Pyrgus malvoides	~			~	~	~	~
72	Large Grizzled Skipper	Pyrgus alveus	~				~		
73	Oberthür's grizzled skipper	Pyrgus armoricanus					~		~
74	Olive Skipper	Pyrgus serratulae							~
75	Safflower Skipper	Pyrgus carthami	~						
76	Red-underwing Skipper	Spialia sertorius	~			~	~	~	~
	Mallow Skipper	Carcharodus alceae							
77	Tufted Marbled Skipper	Carcharodus flocciferus	~			~			
78	Dingy Skipper	Erynnis tages				~	~		~
79	Chequered Skipper	Carterocephalus palaemon							~
80	Lulworth Skipper	Thymelicus acteon							~
	Small Skipper	Thymelicus sylvestris							
81	Large Skipper	Ochlodes sylvanus				~		~	~





	Notable Plants	
	PTERIDOPHYTES	Day
	Aspleniaceae	
1	Asplenium septentrionale - Forked Spleenwort	7
2	Asplenium trichomanes - Maidenhair Spleenwort	1
3	Asplenium ruta-muraria	2
4	Asplenium viridis	5
5	Ceterach officinarum - Rusty back Fern	3
	Polypodiaceae	
6	Polypodium cambricum - Welsh Polypody	1
	GYMNOSPERMS	
	Pinaceae	
7	Pinus sylvestris - Scots Pine	5
8	Pinus mugo	5
9	Picea abies	5
	Cupressaceae	
10	Cypressus sempervirens	3
11	Juniperus communis	3
12	Juniperus horizontalis	3
	ANGIOSPERMS	
	DICOTYLEDONS	
	Apiaceae	
13	Bupleurum fruticosum - Shrubby Hare's ear	3
14	Foeniculum vulgare - Fennel	3
15	Pimpinella saxifraga	5
	Aristolochiaceae	
16	Aristolochia rotunda - a birthwort	4
	Asclepiadaceae	
17	Vincetoxicum hirundinaria ssp. intermedium	3
	Asteraceae	
18	Andryala integrifolia	3
19	Anthemis tinctoria	3
20	Carduus nigrescens	2

22Centaurea aspera323Centaurea ayonus424Centaurea cyanus424Centaurea jacea325Centaurea pectinata626Crupina crupinastrum327Galactites tomentosa328Cirsium enophorum229Filago gallica330Leucanthemum vulgare331Leuzea conifera432Pallenis spinosa333Phagnalon sordidum134Reichardia piroides335Senecio inaequidens636Silybum marianum237Tolpis barbata338Tragopogon crocifolius - Goatsbeard Salsify439Urospermum dalechampii - Smooth Golden Fleece330Euclum vulgare -Viper's Bugloss331Euclin plantagineum - Purple Viper's Bugloss333Flatina affinis534Echium vulgare -Viper's Bugloss335Eulin plantagineum - Purple Viper's Bugloss536Flatina affinis537Fulmonaria affinis538Frassicaceae439Arabis hirsuta130Arabis turitis131Arabis turitis133Flatina sp.2	-		•
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24Centaurea jacea325Centaurea pectinata626Crupina crupinastrum327Galactites tomentosa328Cirsium eriophorum229Filago gallica330Leucanthemum vulgare331Leuzea conifera432Pallenis spinosa333Phagnalon sordidum134Reichardia picroides335Senecio inaequidens636Silybum marianum237Tolpis barbata338Tragopogon crocifolius - Goatsbeard Salsify439Urospermum dalechampii - Smooth Golden Fleece330Echium vulgare -Viper's Bugloss331Echium plantagineum - Purple Viper's Bugloss541Buglossoides arvensis142Folium plantagineum - Purple Viper's Bugloss543Arabis tinisi544Arabis tinisi345Arathis sinsuta346Aethionema saxatile347Ailiaria petiolata248Arabis hirsuta149Arabis turitis149Arabis turitis141Barbarea sp.2	22	Centaurea aspera	_
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26Crupina crupinastrum327Galactites tomentosa328Cirsium eriophorum229Filago gallica330Leucanthemum vulgare331Leuzea conifera432Pallenis spinosa333Phagnalon sordidum134Reichardia picroides335Senecio inaequidens636Silybum marianum237Tolpis barbata338Tragopogon crocifolius - Goatsbeard Salsify439Urospermum dalechampii - Smooth Golden Fleece340Anchusa italica - Italian Bugloss141Buglossoides arvensis142Echium vulgare -Viper's Bugloss343Echium plantagineum - Purple Viper's Bugloss344Lithospermum purpureum545Pulmonaria affinis546Aethionema saxatile347Ailiaria petiolata248Arabis hirsuta149Arabis hirsuta141Burdionema saxatile343Paraeasp.2	24	Centaurea jacea	3
27Galactites tomentosa328Cirsium eriophorum229Filago gallica330Leucanthemum vulgare331Leuzea conifera432Pallenis spinosa333Phagnalon sordidum134Reichardia picroides335Senecio inaequidens636Silybum marianum237Tolpis barbata338Tragopogon crocifolius - Goatsbeard Salsify439Urospermum dalechampil - Smooth Golden Fleece340Anchusa italica - Italian Bugloss141Buglossoides arvensis142Echium vulgare -Viper's Bugloss544Lithospermum purpureum545Pulmonaria affinis546Aethionema saxatile347Alliaria petiolata248Arabis hirsuta149Arabis turitis140Arabis turitis1	25	Centaurea pectinata	6
28Cirsium eriophorum229Filago gallica330Leucanthemum vulgare331Leuzea conifera432Pallenis spinosa333Phagnalon sordidum134Reichardia picroides335Senecio inaequidens636Silybum marianum237Tolpis barbata338Tragopogon crocifolius - Goatsbeard Salsify439Urospermum dalechampii - Smooth Golden Fleece340Anchusa italica - Italian Bugloss141Buglossoides arvensis142Echium vulgare -Viper's Bugloss343Echium plantagineum - Purple Viper's Bugloss544Lithospermum purpureum545Pulmonaria affinis546Aethionema saxatile347Alliaria petiolata248Arabis hirsuta149Arabis hirsuta140Arabis hirsuta141Barbarea sp.2	26	Crupina crupinastrum	3
29Filago gallica330Leucanthemum vulgare331Leuzea conifera432Pallenis spinosa333Phagnalon sordidum134Reichardia picroides335Senecio inaequidens636Silybum marianum237Tolpis barbata338Tragopogon crocifolius - Goatsbeard Salsify439Urospermum dalechampii - Smooth Golden Fleece331Boraginaceae142Echium vulgare -Viper's Bugloss343Echium plantagineum - Purple Viper's Bugloss544Lithospermum purpureum545Pulmonaria affinis554Athionema saxatile347Alliaria petiolata248Arabis hirsuta149Arabis turitis150Barbarea sp.2	27	Galactites tomentosa	3
30Leucanthemum vulgare331Leuca conifera432Pallenis spinosa333Phagnalon sordidum134Reichardia picroides335Senecio inaequidens636Silybum marianum237Tolpis barbata338Tragopogon crocifolius - Goatsbeard Salsify439Urospermum dalechampii - Smooth Golden Fleece330Boraginaceae141Buglossoides arvensis142Echium vulgare -Viper's Bugloss343Echium plantagineum - Purple Viper's Bugloss544Lithospermum purpureum545Pulmonaria affinis5Brassicaceae346Aethionema saxatile347Alliaria petiolata248Arabis hirsuta149Arabis turritis150Barbarea sp.2	28	Cirsium eriophorum	2
31Leuzea conifera432Pallenis spinosa333Phagnalon sordidum134Reichardia picroides335Senecio inaequidens636Silybum marianum237Tolpis barbata338Tragopogon crocifolius - Goatsbeard Salsify439Urospermum dalechampii - Smooth Golden Fleece340Anchusa italica - Italian Bugloss141Buglossoides arvensis142Echium vulgare -Viper's Bugloss343Echium plantagineum - Purple Viper's Bugloss544Lithospermum purpureum545Pulmonaria affinis546Aethionema saxatile347Alliaria petiolata248Arabis turritis149Barbarea sp.1	29	Filago gallica	3
32Pallenis spinosa333Phagnalon sordidum134Reichardia picroides335Senecio inaequidens636Silybum marianum237Tolpis barbata338Tragopogon crocifolius - Goatsbeard Salsify439Urospermum dalechampii - Smooth Golden Fleece340Anchusa italica - Italian Bugloss141Buglossoides arvensis142Echium vulgare -Viper's Bugloss343Echium plantagineum - Purple Viper's Bugloss544Lithospermum purpureum545Pulmonaria affinis546Acthionema saxatile347Alliaria petiolata248Arabis turritis149Arabis turritis150Barbarea sp.2	30	Leucanthemum vulgare	3
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34Reichardia picroides335Senecio inaequidens636Silybum marianum237Tolpis barbata338Tragopogon crocifolius - Goatsbeard Salsify439Urospermum dalechampii - Smooth Golden Fleece340Anchusa italica - Italian Bugloss141Buglossoides arvensis142Echium vulgare - Viper's Bugloss343Echium plantagineum - Purple Viper's Bugloss544Lithospermum purpureum545Pulmonaria affinis546Aethionema saxatile347Alliaria petiolata248Arabis hirsuta149Arabis turritis150Barbarea sp.2	32	Pallenis spinosa	3
35Senecio inaequidens636Silybum marianum237Tolpis barbata338Tragopogon crocifolius - Goatsbeard Salsify439Urospermum dalechampii - Smooth Golden Fleece340Anchusa italica - Italian Bugloss141Buglossoides arvensis142Echium vulgare -Viper's Bugloss343Echium plantagineum - Purple Viper's Bugloss544Lithospermum purpureum545Pulmonaria affinis546Aethionema saxatile347Alliaria petiolata248Arabis hirsuta149Arabis turritis140Barbarea sp.2	33	Phagnalon sordidum	1
36Silybum marianum237Tolpis barbata338Tragopogon crocifolius - Goatsbeard Salsify439Urospermum dalechampii - Smooth Golden Fleece340Anchusa italica - Italian Bugloss141Buglossoides arvensis142Echium vulgare -Viper's Bugloss343Echium plantagineum - Purple Viper's Bugloss544Lithospermum purpureum545Pulmonaria affinis546Aethionema saxatile347Alliaria petiolata248Arabis hirsuta149Arabis turritis150Barbarea sp.2	34	Reichardia picroides	3
37Tolpis barbata338Tragopogon crocifolius - Goatsbeard Salsify439Urospermum dalechampii - Smooth Golden Fleece340Anchusa italica - Italian Bugloss141Buglossoides arvensis142Echium vulgare -Viper's Bugloss343Echium plantagineum - Purple Viper's Bugloss544Lithospermum purpureum545Pulmonaria affinis546Aethionema saxatile347Alliaria petiolata248Arabis hirsuta149Arabis turritis150Barbarea sp.2	35	Senecio inaequidens	6
38Tragopogon crocifolius - Goatsbeard Salsify439Urospermum dalechampii - Smooth Golden Fleece340Boraginaceae140Anchusa italica - Italian Bugloss141Buglossoides arvensis142Echium vulgare -Viper's Bugloss343Echium plantagineum - Purple Viper's Bugloss544Lithospermum purpureum545Pulmonaria affinis546Aethionema saxatile347Alliaria petiolata248Arabis hirsuta149Arabis turritis150Barbarea sp.2	36	Silybum marianum	2
39Urospermum dalechampii - Smooth Golden Fleece339Boraginaceae340Anchusa italica - Italian Bugloss141Buglossoides arvensis142Echium vulgare -Viper's Bugloss343Echium plantagineum - Purple Viper's Bugloss544Lithospermum purpureum545Pulmonaria affinis546Aethionema saxatile347Alliaria petiolata248Arabis hirsuta149Arabis turritis150Barbarea sp.2	37	Tolpis barbata	3
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40Anchusa italica - Italian Bugloss41Buglossoides arvensis142Echium vulgare -Viper's Bugloss343Echium plantagineum - Purple Viper's Bugloss544Lithospermum purpureum545Pulmonaria affinis564Aethionema saxatile347Aliaria petiolata248Arabis hirsuta149Arabis turritis150Barbarea sp.2	39	Urospermum dalechampii - Smooth Golden Fleece	3
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43Echium plantagineum - Purple Viper's Bugloss544Lithospermum purpureum545Pulmonaria affinis5Brassicaceae346Aethionema saxatile347Alliaria petiolata248Arabis hirsuta149Arabis turritis150Barbarea sp.2	41	Buglossoides arvensis	1
44Lithospermum purpureum145Pulmonaria affinis5Brassicaceae146Aethionema saxatile347Alliaria petiolata248Arabis hirsuta149Arabis turritis150Barbarea sp.2	42	Echium vulgare -Viper's Bugloss	3
45Pulmonaria affinis5Brassicaceae146Aethionema saxatile347Alliaria petiolata248Arabis hirsuta149Arabis turritis150Barbarea sp.2	43	Echium plantagineum - Purple Viper's Bugloss	5
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46Aethionema saxatile347Alliaria petiolata248Arabis hirsuta149Arabis turritis150Barbarea sp.2	45	Pulmonaria affinis	5
47Alliaria petiolata248Arabis hirsuta149Arabis turritis150Barbarea sp.2		Brassicaceae	
48Arabis hirsuta149Arabis turritis150Barbarea sp.2	46	Aethionema saxatile	3
49Arabis turritis150Barbarea sp.2	47	Alliaria petiolata	2
50Barbarea sp.2	48	Arabis hirsuta	1
	49	Arabis turritis	1
	50	Barbarea sp.	2
51 Biscutella cichoriifolia	51	Biscutella cichoriifolia	1

52	Cardamine heptaphylla	2
53	Cardamine raphanifolia	1
54	Lunaria annua	7
	Campanulaceae	
55	Campanula persicifolia	6
56	Campanula rapunculus - Rampion Bellflower	4
57	Campanula speciosa	7
58	Jasione laevis	1
	Caprifoliaceae	
59	Lonicera etrusca - Etruscan Honeysuckle	3
	Caryophyllaceae	
60	Arenaria serpyllifolia	6
61	Dianthus carthusianorum - Carthusian Pink	7
62	Dianthus hispanicus	3
63	Cerastium cerastoides	6
64	Herniaria glabra	6
65	Petrorhagia prolifera	3
66	Saponaria ocymoides - Rock Soapwort	1
67	Silene alba - White Campion	2
68	Silene dioica - Red Campion	2
69	Silene vulgaris - Bladder Campion	2
70	Stellaria holostea - Greater Stitchwort	1
	Celastraceae	
71	Euonymus europaeus	6
	Cistaceae	
72	Cistus albidus	3
73	Cistus laurifolius - Laurel-leaved Rockrose	3
74	Cistus monspeliensis - Montpellier Cistus	3
75	Helianthemum apenninum	3
76	Helianthemum canum	6
77	Helianthemum nummularium ssp. glabrum - Common Rockrose	4
	Convolvulaceae	
78	Convolvulus althaeoides	3

79	Convolvulus cantabrica	2
80	Convolvulus lanuginosus	3
	Cornaceae	
81	Cornus mas	6
	Crassulaceae	
82	Sedum dasyphyllum	2
83	Umbilicus rupestris - Navelwort	1
	Cytinaceae	
84	Cytinus hypocistis	6
	Dipsacaceae	
85	Knautia dipsacifolia - Wood scabious	7
	Euphorbiaceae	
86	Euphorbia amygdaloides - Wood Spurge	7
87	Euphorbia characias	3
88	Euphorbia cyparissias - Cypress Spurge	1
89	Euphorbia lathyris	6
90	Euphorbia peplis	3
91	Euphorbia serrata	3
	Fabaceae	
92	Anthyllis vulneraria ssp. forondae Kidney Vetch	1
93	Coronilla emerus	3
94	Coronilla scorpioides - Annual Scorpion-vetch	3
95	Dorycnium pentaphyllum - Prostrate Canary clover	3
96	Genista sagittalis	1
97	Hippocrepis comosa - Horseshoe Vetch	3
98	Lathyrus aphaca	6
99	Lathyrus glycyphyllos	1
100	Lathyrus pratensis - Meadow Pea	6
101	Lathyrus setifolius	1
102	Medicago lupulina	2
103	Medicago minima - Bur Medick	3
104	Onobrychis supina	3
105	Onobrychis viciifolia - Common Sainfoin	5

106	Ononis spinosa	3
107	Ononis natrix	3
108	Psoralea bituminosa - Pitch Trefoil	3
109	Spartium junceum - Spanish Broom	3
110	Tetragonolobus maritimus	7
111	Trifolium arvense - Hare's-foot Clover	3
112	Trifolium campestre - Hop Trefoil	3
113	Trifolium incarnatum - Crimson Clover	4
114	Trifolium leucanthum	3
115	Trifolium montanum - Mountain Clover	7
116	Trifolium pratense - Red Clover	1
117	Trifolium stellatum	3
118	Vicia cracca - Tufted Vetch	1
119	Vicia onobrychioides - False Sainfoin	1
120	Vicia sativa - Common Vetch	1
121	Vicia sepium - Bush Vetch	1
122	<i>Vicia villosa</i> - Fodder Vetch	1
	Fagaceae	
123	Quercus coccifera - Kermes Oak	3
	Gentianaceae	
124	Gentiana clusii	7
125	Gentiana verna - Spring Gentian	5
	Geraniaceae	
126	Erodium cicutarium - Stork's Bill	6
127	Geranium lucidum - Shining Cranesbill	1
128	Geranium pyrenaicum - Mountain Cranesbill	1
129	Geranium robertianum - Herb Robert	1
130	Geranium rotundifolium - Round-leaved Cranesbill	1
131	Geranium sanguineum - Bloody Cranesbill	6
132	Geranium sylvaticum - Wood Cranesbill	7
	Globulariaceae	
133	Globularia cordifolia	3
134	Globularia vulgaris	6

	Hypericaceae	
135	Hypericum perforatum - Perforate St John's-wort	3
	Lamiaceae	
136	Lamium album - White Dead-nettle	1
137	Lamium galeobdolon	2
138	Lamium garganicum	1
139	Lavandula angustifolia - Lavender	4
140	Lavandula stoechas - French Lavender	3
141	Melilitis melissophyllum	4
142	Nepeta latifolia	5
143	Rosmarinus officinalis - Rosemary	3
144	Salvia verbenaca - Wild Clary	3
145	Stachys recta	1
146	Teucrium aureum	3
147	Thymus vulgaris - Thyme	4
	Linaceae	
148	Linum trigynum	4
149	Linum narbonense	3
	Malvaceae	
150	Malva neglecta - Dwarf Mallow	2
151	Malva sylvestris - Common Mallow	2
	Orobanchaceae	
152	Lathraea clandestina - Purple toothwort	2
153	Orobanche gracile	4
	Oleaceae	
154	Jasminum fruticans - Wild Jasmine	4
	Papaveraceae	
155	Chelidonium majus - Greater Celandine	1
156	Papaver rhoeas - Corn Poppy	3
	Plumbaginaceae	
157	Armeria maritima -Thrift	7
	Plantaginaceae	
158	Plantago afra	2

159	Plantago sempervirens	3
	Polygalaceae	
160	Polygala nicaeënsis	1
161	Polygala vulgaris	2
	Polygonaceae	
162	Persicaria bistorta	7
	Primulaceae	
163	Anagallis arvensis - Scarlet Pimpernel	3
164	Primula veris - Cowslip	1
	Ranunculaceae	
165	Aquilegia vulgaris - Columbine	7
166	Caltha palustris	5
167	Hepatica nobilis	1
168	Ranunculus bulbosus	1
	Resedaceae	
169	Reseda sp.	3
170	Reseda lutea - Wild Mignonette	6
171	Reseda phyteuma - Corn Mignonette	
171	Reseda phyteuma - Corn Mignonette Rhamnaceae	
	Rhamnaceae	
172	Rhamnaceae Rhamnus alaternus - Mediterranean Buckthorn	6
172 173	Rhamnaceae Rhamnus alaternus - Mediterranean Buckthorn Rosaceae	6
172 173 174	Rhamnaceae Rhamnus alaternus - Mediterranean Buckthorn Rosaceae Aphanes arvensis	
172 173 174	Rhamnaceae Rhamnus alaternus - Mediterranean Buckthorn Rosaceae Aphanes arvensis Geum urbanum - Herb Bennet	6
172 173 174 175	Rhamnaceae Rhamnus alaternus - Mediterranean Buckthorn Rosaceae Aphanes arvensis Geum urbanum - Herb Bennet Potentilla argentea - Silvery Cinquefoil	6 6
172 173 174 175	Rhamnaceae Rhamnus alaternus - Mediterranean Buckthorn Rosaceae Aphanes arvensis Geum urbanum - Herb Bennet Potentilla argentea - Silvery Cinquefoil Sanguisorba minor - Salad Burnet	6 6
172 173 174 175 176	Rhamnaceae Rhamnus alaternus - Mediterranean Buckthorn Rosaceae Aphanes arvensis Geum urbanum - Herb Bennet Potentilla argentea - Silvery Cinquefoil Sanguisorba minor - Salad Burnet Rubiaceae	6 6 3
172 173 174 175 176 177	RhamnaceaeRhamnus alaternus - Mediterranean BuckthornRosaceaeAphanes arvensisGeum urbanum - Herb BennetPotentilla argentea - Silvery CinquefoilSanguisorba minor - Salad BurnetRubiaceaeCruciata laevipes	6 3 6
172 173 174 175 176 177 178	Rhamnaceae Rhamnus alaternus - Mediterranean Buckthorn Rosaceae Aphanes arvensis Geum urbanum - Herb Bennet Potentilla argentea - Silvery Cinquefoil Sanguisorba minor - Salad Burnet Rubiaceae Cruciata laevipes Galium odoratum	6 6 2
172 173 174 175 176 177 178 179	RhamnaceaeRhamnus alaternus - Mediterranean BuckthornRosaceaeAphanes arvensisGeum urbanum - Herb BennetPotentilla argentea - Silvery CinquefoilSanguisorba minor - Salad BurnetRubiaceaeCruciata laevipesGalium odoratumSherardia arvensis - Field Madder	6 3 6 2 4
172 173 174 175 176 177 178 179	RhamnaceaeRhamnus alaternus - Mediterranean BuckthornRosaceaeAphanes arvensisGeum urbanum - Herb BennetPotentilla argentea - Silvery CinquefoilSanguisorba minor - Salad BurnetRubiaceaeCruciata laevipesGalium odoratumSherardia arvensis - Field MadderRubia peregrina	6 3 6 2 4

182	Osyris alba	3
183	Thesium catalaunicum	4
	Saxifragaceae	
184	Saxifraga granulata - Meadow saxifrage	1
185	Saxifraga paniculata	5
186	Saxifraga rotundifolia	1
187	Saxifraga geranioides	6
	Scrophulariaceae	
188	Antirrhinum siculum - Sicilian Snapdragon	2
189	Asarina procumbens	5
190	Digitalis lutea	6
191	Erinus alpinus	6
192	Linaria micrantha	1
193	Misopates orontium - Weasel's Snout	3
194	Rhinanthus angustifolius	1
195	Scrophularia canina	3
196	Veronica chamaedrys	1
	Valerianaceae	
197	Centranthus angustifolia	3
198	Centranthus rubra	2
199	Valeriana montana	6
200	Valerianella sp	1
	Violaceae	
201	Viola tricolor	2
	MONOCOTYLEDONS	
	Amaryllidaceae	
202	Narcissus poeticus - Poet's Narcissus	2
	Liliaceae	
203	Anthericum liliago - St Bernard's Lily	4
204	Aphyllanthes monspeliensis - Blue Grass Lily	7
205	Dipcadi serotinum - Dipcadi	3
206	Erythronium des-canis	2
207	Muscari comosum - Tassel Hyacinth	1

208	Polygonatum odoratum	4
209	Ruscus aculeatus - Butcher's Broom	
	Orchidaceae	
210	Orchis anthropophorum - Man Orchid	3
211	Anacamptis morio - Green-winged Orchid	2
212	Anacamptis pyramidalis - Pyramidal Orchid	3
213	Cephalanthera longifolia - Sword-leaved Helleborine	2
214	Dactylorhiza maculata - Heath Spotted Orchid	7
215	Dactylorhiza sambucina - Elderflower Orchid (Red and Yellow forms)	2
216	Epipactis microphylla - Small-leaved Helleborine	4
217	Neottia ovata - Common Twayblade	7
218	Ophrys argensonensis	3
219	Ophrys insectifera - Fly Orchid	4
220	Ophrys scolopax - Woodcock Orchid	4
221	Orchis militaris - Military Orchid	7
222	Orchis olbiensis - Southern Early Purple	2
223	Orchis purpurea - Lady Orchid	7
224	Orchis ustulata - Burnt-tip Orchid	2
225	Platanthera chlorantha - Greater Butterfly-orchid	7
	Xanthorrhoeaceae	
226	Asphodelus albus	1









Spanish Gatekeeper © David Moore









Chequered Blue © David Moore











Female Violet Copper © David Moore









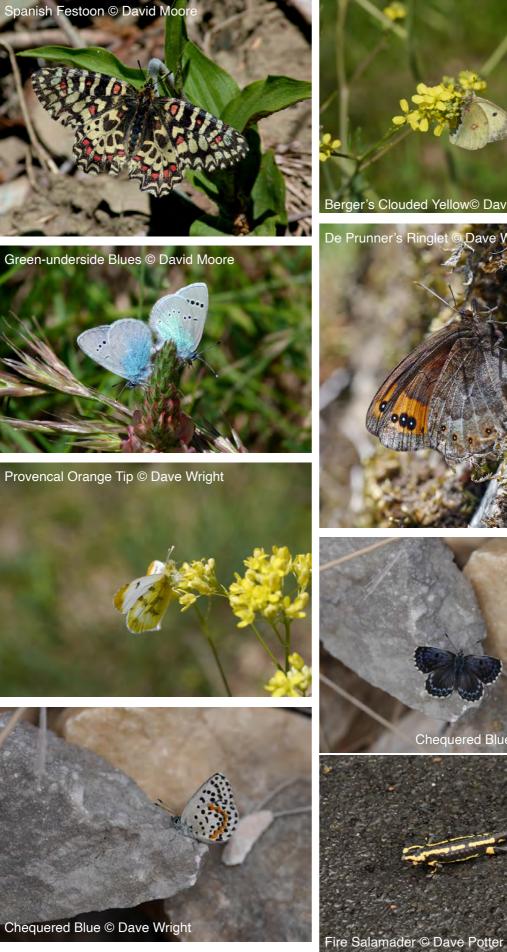








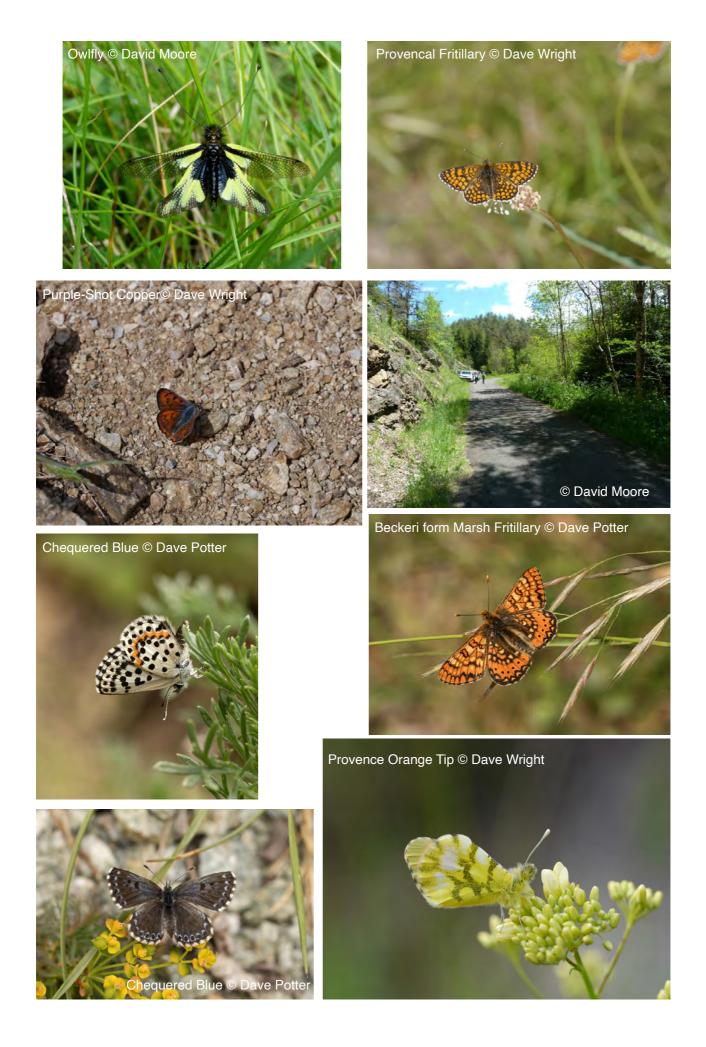














Tetragonolobus maritimus © Yiannis Christofides





Beckeri form Marsh Fritillaries © Dave Potter

Clouded Apollo © Dave Potter





Trumpet Gentian © Dave Potter

Sooty Copper © Dave Potter









