

Bulgaria in Summer

Naturetrek Tour Report

18 - 25 July 2019



Balkan Copper



Banded Darter



Spotted Nutcracker



Spurge Hawk-moth

Report & Images by Andy Harding



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With 15 Naturetrek Clients

Day 1

Thursday 18th July

The trip had a very difficult start, due to problems with the baggage system at Heathrow Terminal 5, resulting in delays, missing bags and Andy having to travel on a much later flight.

The group eventually met Dancho and Stoyan and took a scenic route towards the Pirin mountains but taking in a major natural history stop near Mechkata. The Blue Larkspur all over a cornfield reminded the group of what the UK could be like and Old Man's Beard was a familiar old friend. The birds were quite exotic, with Roller and Bee-eater the most colourful, Crag Martin unfamiliar to most, and Turtle Doves aplenty...now so scarce in the UK.

Butterflies were even better, with Scarce Swallowtail for show, Knapweed, Spotted, Lesser Spotted and Queen of Spain Fritillaries, Short-tailed and Reverdin's Blues and Orbed Red-underwing Skipper. To top it off, the majestic Great Banded Grayling landed on at least two of the group. Bloodwood Burnet was a lovely day-flying moth and Southern Migrant Hawker complemented the Beautiful and Banded Demoiselles.

A wonderful stop made for a latish arrival in Melnik and a very welcome dinner for a now-tired group.

Day 2

Friday 19th July

Max temp. 28°C, sunny, with one heavy shower

The day started with a real bang...a superb pre-breakfast birding walk, during which the group saw three species of Shrike, including the beautiful Masked Shrike, together with Golden Orioles and a very exciting raptor...Eleonora's Falcon.

After an excellent breakfast and a relatively short drive to Rupite, the quality of the morning did not drop. A lengthy uphill stroll was taken, away from the touristy part of Rupite. The undoubted highlight was a very rare species of butterfly, Freyer's Grayling which was discovered in a most unusual place ... feeding inside a dead Tortoise! Oriental Marbled Skipper was almost as good, while both Swallowtails soared around and there was a real plethora of the beautiful Southern White Admirals. An excellent and attractive Burnet moth, *Zygaena purpuralis*, kept the moth list ticking over, but the group were more drawn to the several very large adult Antlions, *Palpares libelluloides*. Cornelian Cherry was in full fruit. Around noon Andy rejoined the group, having noted a Lesser Spotted Fritillary (butterfly) attempting to mate with a Rosy Footman (moth) while strolling up the hill to meet everyone.

The afternoon walk, alongside the mud pools beloved of those who believe they are good for the skin, provided an interesting dragonfly identification tutorial, since three 'blue' Skimmers were available – Black-tailed, Keeled and Southern – in quick succession. Another Skipper – Mallow, a Long-nosed Grasshopper and two huge Wasp Spiders added further invertebrate interest. In the adjoining stream were shoals of the introduced Western Mosquito-fish, which joined the Marsh Frogs and the rather shy Caspian Terrapin. The adjacent huge stand of Poplar was a compelling sight to tree-lovers.

A few spots of rain produced the fateful comment that 'if we walk another 200 metres in that direction, we will be away from the rain'. The heavens opened in a typical mountain deluge. However, less than an hour later, the sun reappeared and that was a cue for birds to appear as well. Rollers and Bee-eaters had been seen in the morning, but the current views of the latter were particularly fine. A distant Lesser Grey Shrike (making it four Shrikes in the day) drew us some way past our original intended point of return. This was fortuitous since it resulted in better views of the Shrike, a nice Hoopoe and, even better, a circling female Levant Sparrowhawk, which moved towards us instead of the more commonly experienced 'away'! At different points on this walk it was clear, and barely believable, that the commonest butterfly was Little Tiger Blue, which is both beautiful and highly prized.

With continuing uncertainty about the luggage catching us up, we made a trip into the largish town of Sandanski, where those who wished to buy clothes for the next two days had an hour to do so, while the lucky few ate ice creams. Then it was back to the hotel for a quick swim and dinner. This was followed by a log call-over, for two days, necessarily long with so much seen.

Day 3

Saturday 20th July

Max temp. 28°C, sunny

The permanent night-time lighting around the hotel is not conducive to moth trapping, but we gave it a go, with some worthwhile results. A spectacular Lobster Moth, a Coronet and a Four-spotted Footman were outside the trap, while inside were many of the last-named species, three other species of Footman, Small Chocolate-tip and another spectacular species, the Gypsy Moth. Some young, almost fledged Spotted Flycatchers in a nest on the side of the hotel were a major distraction as were the 'chattering' Alpine Swifts overhead. The actual birding walk was a bit thinner today, but those who saw Syrian Woodpecker were very well-satisfied.

Shortly after our prompt departure, after breakfast, we stopped in the village of Spatovo to see two colonies of Spanish Sparrows, in self-built nests, as opposed to their usual habit of nesting under White Storks nests.

The plan was a gentle two-hour stroll down to, and then round part of Gen. Todorov Lake. Well before the lake Red-veined Darters were regular, but interrupted by Garden Warblers, a male Scarlet Darter (how red is that!) and the rare moth, *Hadena laudeti*. A Black Pennant Dragonfly was seen frustratingly fleetingly, but 50 metres further on they were quite common, accompanied by Lesser Fiery Copper butterflies ... and still we had not reached the lake. Once there a Short-toed Eagle, atop a nearby pylon distracted us from reed watching. Before any further new species of dragonfly could be located, another stunning moth was found ... *Grammodes bifasciata*. Then a pair of Banded Darters were netted, which was a major target achieved – the tiny red patches (pterostigmas) near their wing-tips were simply beautiful. Spotted Darter, one of Europe's rarest dragonflies, followed soon after. Both of the above gave stupendous views. Knapweed Fritillary and Large Coppers kept the pot boiling. At a little inlet into the reedbed a fairly tame Emperor Dragonfly jousting with a Green-eyed (also known as Norfolk) Hawker, and eventually both took a rest and were photographed.

Then it was off to a picnic lunch at the spring between Petrovo and Izvora. There were just a few other people around at this idyllic spot in the shade by the stream, initially accompanied by the familiar Beautiful Demoiselles. Not long after lunch we were treated to wonderful views of the Balkan Goldenring and the Eastern Spectre.

Taking a slow walk on the road towards Petrovo, our first success was a superb specimen of White-letter Hairstreak. Regulars on the walk were both Wood White and Eastern Wood White (colour of the underside of the antennae is the definitive difference) and Common Gliders. Woodland and Eastern Rock Grayling only showed their upperside in the hand. Sombre Goldenring added to a now wonderful Dragonfly tally, while a very large and protected Long-horn Beetle flew in but rapidly hid in some dead foliage. A small flock of Willow Tits, now so scarce in the UK, tested the ID skills in separating them from the closely related Marsh Tit. A small series of male Meleager's Blues adorned flower heads without showing any blue except in flight and eventually the more glamorous female did give a slightly better show of this much-wanted butterfly.

En route to the hotel we stopped at a cattle watering hole in Hargovo for Scarce Blue-tail Damselfly and were not disappointed, but it offered little else except a few scumped plums.

On returning to the hotel several of the group went sightseeing into Melnik and a couple even fitted in a short swim before dinner. It was another very full, and exciting log.

Day 4

Sunday 21st July

Sunny, 24°C in mountains

Because the bird life had dropped off somewhat since the first morning, there was no organised bird walk, but a Little Owl was found in the town. A Small Chocolate-tip, a Leopard Moth and the infamous Pine Processionary made running the trap worthwhile.

Packing the bus was still easy given the non-arrival of any missing luggage and we set off to Novo Hozhovo, very close to the Greek border; so close that a border patrol of four officers took an immediate interest in us. Having satisfied them as to our *bona fides*, we wandered alongside a stream then off into drier areas. A couple of Green Woodpeckers were actually seen, Lesser Whitethroats were moving through, and Red-backed Shrikes and Bee-eaters were with us. However, for the first hour or so there was little butterfly activity, despite it having been hot and sunny for a couple of hours. Indeed, three Blues, Common, Silver-studded and Little Tiger, and plenty of Gatekeepers were on the flowers, in part covered in Strangleweed. They and a Wall Brown were about all, until we were back at the bus, where a Common Glider and some Silver-washed Fritillaries brightened the scene.

We then made a fairly short stop at the stream near the Repel Winery, where Southern Skimmer was arguably the best dragonfly, but still everyone remained enchanted by the Beautiful and Banded Demoiselles.

Despite running late, we had to stop on the roadside near Pirin Village for an Apollo butterfly on the small cliff on the opposite side of the road, which briefly showed very nicely. On the verge where the coach had stopped was an Anomalous Blue species, either Ripart's or Higgin's, seen all too briefly and a lovely Turquoise Blue which did perform. Lunch was in a layby at Popovi Livdi. The layby was not without interest. Large Ringlets mingled with Arran Browns and three very obliging Honey Buzzards called and interacted in the tree-tops just above us. A walk down to the stream gave even better views of the Ringlet, some Scarce Coppers and a Marbled Fritillary, but some species seen in previous years were absent.

A very short drive, after lunch, just as far as we could take the coach up Mt. Orelak was immediately rewarding with Higgin's Anomalous Blue on the ground next to the vehicle, performing beautifully. Then there was a slow,

long, easy stroll on a good track up hill, for the rest of the afternoon. There were virtually no birds until two Nutcrackers appeared and showed extremely well for about 15 minutes, to everyone's surprise. The higher altitude seemed important to the appearance of butterflies; Ottoman Brassy Ringlet, Bright-eyed Ringlet, Idas Blues, Great Sooty Satyr and Mountain Small White were not seen during the first three-quarters of the walk. Latterly Cardinal Fritillaries were feeding on large Thistles and, of course, altitude was no bar to the ubiquitous Painted Ladies. At the very point we decided to descend, a lovely exotic plant was found; the Yellow Bird's-nest. The descent was much speedier, and we were ensconced in our new hotel in Bansko in reasonable time for our *al fresco* dinner.

Day 5

Monday 22nd July

25°C, but cooler at higher altitudes.

The in-town location of our nice hotel did not allow for an organised morning bird walk, but Black Redstart, Red-backed Shrike and Spotted Flycatcher could be seen from or close to the hotel! The moth trap, located on a balcony, was a great success with Sussex Emerald and another Pine Processionary on the wall, with many Four-spotted Footmen, as usual. The trap was opened in the outdoor dining area in the half hour before breakfast. Even those not obviously keen on moths could only be impressed by Bordered Gothic, two different Brocades, Feathered Beauty and, to top it off, a huge and gorgeous Dark Crimson Underwing.

Our whole day was to be centred on the Bansko Ski Zone, and as soon as the coach stopped, at the limit of permitted driving, we collectively shared out what we needed for a picnic lunch and slowly set off up the road for the first half of our walk. At the very first corner Mazarine Blue and Eastern Large Heath were added to the list, with a most interesting moth, the almost-black *Typhonia ciliaris* (*Melasina melana*), which is shaped like a Forester/ Burnet, but is no relation. The short diversion to the 'oldest tree in Bulgaria' was, perhaps, the most productive for butterflies of the whole walk, with Pearl-bordered Fritillary, Mountain Argus and Large Wall Brown the additions to the growing list.

A little further on Large Ringlets abounded and Ottoman Brassy Ringlets were regular. A Large Grizzled Skipper was seen in the net and then on a Scabious head. False Eros Blues then started to appear and were readily identified, with Common Blues alongside. This tutorial was rudely interrupted by a male Meleager's Blue which obligingly opened its wings, unlike the others seen previously. The carnivorous Butterwort was in precisely the same area and Bloody Cranesbill could be seen at several spots on the walk up.

Nutcrackers were heard periodically but only glimpsed by a couple in the group, but Crossbills were becoming increasingly common, culminating in some stunning views of both sexes and all ages as we sat on the balcony of the 'hut' eating our picnic lunch. This mixture of hostel, restaurant and bar is also host to many pairs of Pallid Swifts and a couple of pairs of Crag Martins. The latter were the majority species here until very recently but are gradually being replaced by the more aggressive Swifts. The toilets were also worth a visit with several specimens of both Silver-ground Carpet and Grey Mountain Carpet on the walls: the latter moth only being available in the northern reaches of Scotland in the UK. Coxcomb Prominents and *Apamea maillardi* were other attractive additions to the moth list here.

Then, with lunch over, there were a series of scrambles to get most of the group up to the alpine meadows and river crossing. Birds were good with Black Redstarts, Ring Ouzels and an aberrant Mistle Thrush, with the star

being an obliging Dipper. The hoped-for Balkan Fritillary also obliged. Grass-of-Parnassus certainly caught the eye here, while in a meadow Herb-Paris was simply beautiful.

A few drops of rain suggested an earlier return, but while that did not come to much, many of the group took advantage of the freshly pressed orange juice back at the hut, before the slow stroll back to the coach. At one point, a Wintergreen, Red Helleborine and Bird's-nest Orchid were all noted within just a few feet of one another which delayed things for the very best of reasons. However, several of those who had passed this spot earlier obtained more excellent views of Nutcracker right next to the coach. Back in Bansko, more clothes were purchased by some of the group before dinner, again *al fresco* but with a roof, as the rain poured down!

Day 6

Tuesday 23rd July

25°C and sunny lower down, but largely cloudy and cooler at higher altitudes.

Despite a cool clear night after the rain, there were more than enough moths to maintain interest. Dusky Thorn, Goat Moth and above all, a superb Spurge Hawk-moth collected from the wall, whetted the appetite before the trap opening just before breakfast. The trap itself held less flashy contents, with only Broad-bordered Yellow Underwing, Pale-shouldered Brocade, Lychnis and Rose-banded Wave drawing admiring glances.

Breakfast was again excellent, setting us up for a reasonably short drive up to the bottom of a double-ski-lift which took about 40 minutes for all to ascend to 2300 metres. The immediate search for Nicholl's Ringlet in small meadows, close to the lake and the top of the ski-lift, was unsuccessful in the dry but misty conditions. Such gloominess was to dog the whole day with only brief bursts of intermittent sunshine.

Given the lengthy scramble which was necessary to get anywhere near 'the top', the group, as usual, fragmented. Those who stayed at the bottom botanized and looked for Nutcracker and other birds; another subset did the whole of the scrambling, saw the second lake (it was often invisible), but then slowly returned; two even swam 'wild' in the lake! A smaller group went past the scrambles, but as the mist became even thicker, they also descended to find a single Nicholl's Ringlet and some Common Hawkmoths which had emerged slightly damaged, but were retrieved from the lake. Seven souls almost reached the top and were richly rewarded, though no-one saw all the excellent species recorded. On the bird front, an adult and two young Horned Larks topped even an Alpine Accentor. The whole group did see a family of Weasels charging madly about, while at least 50 Frog Orchids were in a small alpine meadow. A sudden burst of sunshine sent lots of Nicholl's Ringlets skywards and a single Silky Ringlet... a real high-altitude specialist. We were all back at the top of the higher ski-lift by 4pm and returned to lower levels. A fair number of the group had not travelled this way before, so while largely hugely pleasurable, getting on and off was a little worrying for some. All-in-all, a real experience.

A stop half-way back to Bansko at some small meadows with trees, a river and, of course, in bright sunshine, was a real bonus. Insects abounded, giving people an ID lesson on Idas Blue of the Bulgarian subspecies, Weaver's Fritillary, Olive Skipper and a female Balkan Copper, all new for the trip. Scarce Copper and Knapweed Fritillary were enjoyed all over again, and Serins twittered in the adjacent Pines.

Back at the hotel, all but two of the missing bags had finally arrived. We hope for the others tomorrow.

Day 7

Wednesday 24th July

25°C at lower altitudes; showers late morning; 20°C at higher altitudes.

We made a slightly earlier start for the journey to Rila Monastery, but that still allowed time for an early pre-breakfast moth session. Blustery conditions during the night had affected the catch, but Nutmeg, Cabbage Moth, Marbled Clover and Sweet Gale, as well as a good number of interesting repeats, made it worthwhile.

Just short of Rila, we stopped at some harvested hayfields, where Woodchat and Lesser Grey Shrikes sat on bales, while a Hoopoe watched on. Despite the light drizzle, the Monastery was an absolute must-visit. However, the site is very compact and a stay of just over an hour satisfied the whole group.

It was not a very lengthy further drive to Kirilova Polyana, where we took our picnic lunch under cover. Fortunately, the rain had stopped by the time we took a lengthy hike on a good track, on a gentle gradient up the mountain. The dull, if dry, conditions made butterflies fairly non-existent, but in short bursts of sunshine Arran Brown could be differentiated from Scotch Argus and Large Ringlet. Early on the walk a large flock of Siskins flitted in the trees alongside us. Again, individuals or subsets of the group simply walked up as far as they wished, stopping to look at whatever interested them. In the event, no-one walked far enough to reach the alpine meadows above the tree-line, while the botanists loved *Ranunculus aconitiflorus*, *Rheum raponticum* and the bright-orange *Geum coccinum*. Late in the day a Northern, as opposed to Large, Wall Brown was found and, as the sun came out just before departure, two male Balkan Coppers and a Black-veined White (our last new species) came out to play.

We arrived back to see the last two cases in the lobby: a great relief, which added to a jovial and upbeat final dinner...*al fresco*, of course.

Day 8

Thursday 25th July

22°C, sunny

There is always time for a few moths before breakfast and the Peppered Moth, beloved of GCSE biology, the puzzlingly green form of Barred Red and the superb Passenger moth was a brilliant end to our moth-trapping. Well done and thank you to Stoyan for making and bringing the trap.

It was a perfectly sensible temperature in which to load all the luggage and head for the airport. We were in good time, so a short natural history stop at much lower altitude than recently was permitted. A couple of meadows alongside a reed-clad stream produced some birds: Northern Wheatear, Hoopoe and Spotted Flycatcher, some butterflies: notably Large Copper and Lang's Short-tailed Blue, and some repeat Dragonflies. These were all creatures which it would be hard or impossible to see back in the UK. Our arrival at Sofia airport was on schedule, but the farewells to Dancho and Stoyan necessarily brief. The processes and procedures to get us aboard our flight were efficient and pleasant and we arrived back at Heathrow pretty well on time.

Thanks to everybody who came on the trip and helped make it such a good one, despite the cloud of the lost luggage throughout.

Species Lists

Birds (✓=recorded but not counted; h = heard only)

	Common name	Scientific name	July							
			18	19	20	21	22	23	24	25
1	Mute Swan	<i>Cygnus olor</i>	✓							
2	Alpine Swift	<i>Tachymartitis melba</i>		✓	✓	✓				
3	Common Swift	<i>Apus apus</i>	✓							
4	Pallid Swift	<i>Apus pallidus</i>		✓		✓	✓	✓	✓	
5	Common Cuckoo	<i>Cuculus canorus</i>		2						
6	Feral Pigeon	<i>Columba livia var. domestica</i>	✓	✓	✓	✓	✓	✓	✓	✓
7	Common Wood Pigeon	<i>Columba palumbus</i>			1	1			1	
8	European Turtle Dove	<i>Streptopelia turtur</i>	✓	✓	✓				✓	✓
9	Eurasian Collared Dove	<i>Streptopelia decaocto</i>	✓	✓	✓	✓	✓	✓	✓	✓
10	Black Stork	<i>Ciconia nigra</i>		3	1					
11	White Stork	<i>Ciconia ciconia</i>	✓	✓	✓	✓			✓	✓
12	Great Cormorant	<i>Phalacrocorax carbo</i>	✓							✓
13	Grey Heron	<i>Ardea cinerea</i>		✓					✓	✓
14	Little Egret	<i>Egretta garzetta</i>	✓	✓	✓					
15	European Honey Buzzard	<i>Pernis apivorus</i>		1	2	3				
16	Short-toed Snake Eagle	<i>Circaetus gallicus</i>			1					
17	Levant Sparrowhawk	<i>Accipiter brevipes</i>		1						
18	Eurasian Sparrowhawk	<i>Accipiter nisus</i>		1		1				
19	Long-legged Buzzard	<i>Buteo rufinus</i>		3	1	1				
20	Common Buzzard	<i>Buteo buteo</i>	✓		✓					✓
21	Tawny Owl	<i>Strix aluco</i>			h					
22	Little Owl	<i>Athene noctua</i>				1				
23	Eurasian Hoopoe	<i>Upupa epops</i>		1					1	
24	European Roller	<i>Coracias garrulus</i>	✓	✓	1					
25	European Bee-eater	<i>Merops apiaster</i>	✓	✓	✓	✓				
26	Lesser Spotted Woodpecker	<i>Dryobates minor</i>			h					
27	Syrian Woodpecker	<i>Dendrocopos syriacus</i>			1					
28	Great Spotted Woodpecker	<i>Dendrocopos major</i>			h		h		✓	
29	European Green Woodpecker	<i>Picus viridis</i>		h	h	2			✓	
30	Grey-headed Woodpecker	<i>Picus canus</i>		h						
31	Common Kestrel	<i>Falco tinnunculus</i>	✓	✓					✓	✓
32	Eleonora's Falcon	<i>Falco eleonora</i>		1						
33	Red-backed Shrike	<i>Lanius collurio</i>	✓	✓	✓	✓		✓	✓	✓
34	Lesser Grey Shrike	<i>Lanius minor</i>		1					1	
35	Woodchat Shrike	<i>Lanius senator</i>		2					4	
36	Masked Shrike	<i>Lanius nubicus</i>		2						
37	Eurasian Golden Oriole	<i>Oriolus oriolus</i>	✓	✓	✓	h				
38	Eurasian Jay	<i>Garrulus glandarius</i>	✓	✓	✓	✓	✓	✓	✓	✓
39	Eurasian Magpie	<i>Pica pica</i>	✓	✓	✓	✓		✓	✓	✓
40	Spotted Nutcracker	<i>Nucifraga caryocatactes</i>				2	✓	7	h	
41	Western Jackdaw	<i>Coloeus monedula</i>								1
42	Rook	<i>Corvus frugilegus</i>								1
43	Hooded Crow	<i>Corvus cornix</i>	✓	✓						✓
44	Northern Raven	<i>Corvus corax</i>			1	2		✓		
45	Coal Tit	<i>Periparus ater</i>		h		✓	✓	✓	✓	
46	European Crested Tit	<i>Lophophanes cristatus</i>					1			
47	Willow Tit	<i>Poecile montanus</i>			3	1	h	h	✓	

	Common name	Scientific name	July							
			18	19	20	21	22	23	24	25
48	Eurasian Blue Tit	<i>Cyanistes caeruleus</i>		✓	✓	✓	✓	✓	✓	
49	Great Tit	<i>Parus major</i>		✓	✓	✓	✓	✓	✓	
50	Crested Lark	<i>Galerida cristata</i>		✓	✓	✓			✓	✓
51	Horned Lark	<i>Eremophila alpestris</i>						3		
52	Sand Martin	<i>Riparia riparia</i>			✓	✓				
53	Barn Swallow	<i>Hirundo rustica</i>	✓	✓	✓	✓	✓	✓	✓	✓
54	Eurasian Crag Martin	<i>Ptyonoprogne rupestris</i>	✓		✓	✓	✓	✓	✓	
55	Common House Martin	<i>Delichon urbicum</i>	✓	✓	✓	✓	✓	✓	✓	✓
56	Red-rumped Swallow	<i>Cecropis daurica</i>	✓	✓	✓	✓		✓	✓	✓
57	Cetti's Warbler	<i>Cettia cetti</i>				h				
58	Long-tailed Tit	<i>Aegithalos caudatus</i>			✓	✓				
59	Common Chiffchaff	<i>Phylloscopus collybita</i>		h			✓	✓	✓	
60	Great Reed Warbler	<i>Acrocephalus arundinaceus</i>			h					
61	Olive-tree Warbler	<i>Hippolais olivetorum</i>		1						
62	Garden Warbler	<i>Sylvia borin</i>			1	2				
63	Lesser Whitethroat	<i>Sylvia curruca</i>				1				
64	Common Whitethroat	<i>Sylvia communis</i>		✓						
65	Sardinian Warbler	<i>Sylvia melanocephala</i>				h				
66	Eurasian Wren	<i>Troglodytes troglodytes</i>					h	✓		
67	Eurasian Nuthatch	<i>Sitta europaea</i>			✓		h	h	✓	
68	Common Starling	<i>Sturnus vulgaris</i>	✓	✓	✓	✓			✓	✓
69	Ring Ouzel	<i>Turdus torquatus</i>					3	1		
70	Common Blackbird	<i>Turdus merula</i>		✓	✓	✓	✓	✓	✓	
71	Song Thrush	<i>Turdus philomelos</i>			✓					
72	Mistle Thrush	<i>Turdus viscivorus</i>					✓	✓	✓	
73	Spotted Flycatcher	<i>Muscicapa striata</i>		✓	✓					
74	European Robin	<i>Erithacus rubecula</i>			✓	✓	✓	✓	✓	
75	Black Redstart	<i>Phoenicurus ochruros</i>					✓	✓	✓	
76	Northern Wheatear	<i>Oenanthe oenanthe</i>		1						1
77	White-throated Dipper	<i>Cinclus cinclus</i>					1			
78	House Sparrow	<i>Passer domesticus</i>	✓	✓	✓	✓	✓	✓	✓	✓
79	Spanish Sparrow	<i>Passer hispaniolensis</i>		✓	✓	✓				
80	Eurasian Tree Sparrow	<i>Passer montanus</i>	✓	✓						
81	Alpine Accentor	<i>Prunella collaris</i>						1		
82	Dunnock	<i>Prunella modularis</i>					✓	✓	✓	
83	Grey Wagtail	<i>Motacilla cinerea</i>			✓	✓	✓	✓	✓	
84	White Wagtail	<i>Motacilla alba</i>		✓		✓		✓	✓	
85	Common Chaffinch	<i>Fringilla coelebs</i>		✓	✓	✓	✓	✓	✓	
86	Hawfinch	<i>Coccothraustes coccothraustes</i>	✓	✓		✓			✓	
87	Eurasian Bullfinch	<i>Pyrrhula pyrrhula</i>					✓	✓	✓	
88	European Greenfinch	<i>Chloris chloris</i>				✓				
89	Common Linnet	<i>Linaria cannabina</i>					✓	✓		
90	Red Crossbill	<i>Loxia curvirostra</i>					✓	✓		
91	European Goldfinch	<i>Carduelis carduelis</i>	✓	✓	✓	✓		✓		
92	European Serin	<i>Serinus serinus</i>				✓		✓		
93	Eurasian Siskin	<i>Spinus spinus</i>							✓	
94	Corn Bunting	<i>Emberiza calandra</i>				✓				
95	Rock Bunting	<i>Emberiza cia</i>						2		
96	Cirl Bunting	<i>Emberiza cirlus</i>		2						

	Common name	Scientific name	July						
			18	19	20	21	22	23	24

Butterflies

1	Large Grizzled Skipper	<i>Pyrgus alveus</i>					✓			
2	Orbed Red-Underwing Skipper	<i>Spialia orbifer</i>	✓			✓				
3	Oberthür's Grizzled Skipper	<i>Pyrgus armoricanus</i>			✓					
4	Olive Skipper	<i>Pyrgus serratulae</i>						✓		
5	Mallow Skipper	<i>Carcharodus alceae</i>		✓	✓	✓				
6	Oriental Marbled Skipper	<i>Carcharodes orientalis</i>		✓	✓	✓				
7	Essex Skipper	<i>Thymelicus lineola</i>	✓					✓		
8	Small Skipper	<i>Thymelicus sylvestris</i>					✓			
9	Large Skipper	<i>Ochlodes sylvanus (=venatus)</i>				✓				
10	Apollo	<i>Parnassius apollo</i>				✓				
11	Swallowtail	<i>Papilio machaon</i>		✓						
12	Scarce Swallowtail	<i>Iphiclides podalirius</i>	✓	✓						
13	Small White	<i>Pieris rapae</i>		✓	✓	✓	✓	✓	✓	
14	Southern Small White	<i>Pieris mannii</i>			✓					
15	Mountain Small White	<i>Pieris ergane</i>				✓				
16	Eastern Bath White	<i>Pontia edusa</i>		✓	✓			✓		
17	Black-veined White	<i>Aporia crataegi</i>								✓
18	Large White	<i>Pieris brassicae</i>				✓				✓
19	Clouded Yellow	<i>Colias crocea</i>	✓		✓	✓	✓	✓		
20	Brimstone	<i>Gonepteryx rhamni</i>			✓					
21	Wood White	<i>Leptidea sinapis</i>			✓	✓	✓		✓	
22	Eastern Wood White	<i>Leptidea duponcheli</i>			✓					
23	White-letter Hairstreak	<i>Satyrrium w-album</i>			✓					
24	Ilex Hairstreak	<i>Satyrrium ilicis</i>			✓					
25	Small Copper	<i>Lycaena phlaeas</i>	✓	✓	✓	✓	✓	✓		✓
26	Scarce Copper	<i>Lycaena virgaureae</i>				✓		✓	✓	
27	Sooty Copper	<i>Lycaena tityrus</i>		✓		✓				
28	Purple-shot Copper	<i>Lycaena alciphron</i>			✓					
29	Large Copper	<i>Lycaena dispar</i>			✓	✓				✓
30	Balkan Copper	<i>Lycaena candens</i>						✓	✓	
31	Lesser Fiery Copper	<i>Lycaena thersamon</i>			✓					
32	Little Tiger Blue	<i>Tarucus balkanicus</i>		✓		✓				
33	Lang's Short-tailed Blue	<i>Leptotes pirithous</i>				✓				✓
34	Short-tailed Blue	<i>Cupido argiades</i>		✓	✓					
35	Little Blue	<i>Cupido minimus</i>					✓			
36	Eastern Short-tailed Blue	<i>Cupido (Everes) decolorata</i>			✓					
37	Holly Blue	<i>Celastrina argiolus</i>	✓	✓	✓	✓	✓			
38	Eastern Baton Blue	<i>Pseudophilotes vicrama</i>			✓	✓				
39	Silver-studded Blue	<i>Plebejus argus</i>			✓	✓				
40	Idas Blue	<i>Plebejus idas</i>				✓		✓		
41	Reverdin's Blue	<i>Plebejus argyrognomon</i>	✓							
42	Brown Argus	<i>Aricia agestis</i>	✓		✓					
43	Mountain Argus	<i>Aricia artaxerxes</i>					✓			
44	Mazarine Blue	<i>Cyaniris semiargus</i>					✓		✓	
45	Ripart's Anomalous Blue	<i>Polyommatus (Agrodiaetus) ripartii</i>				✓				
46	Turquoise Blue	<i>Polyommatus (Plebicula) dorylas</i>				✓	✓			
47	Meleager's Blue	<i>Polyommatus (Meleageria) daphnis</i>			✓		✓			
48	Adonis Blue	<i>Polyommatus (Lysandra) bellargus</i>				✓				
49	Common Blue	<i>Polyommatus icarus</i>	✓	✓	✓	✓	✓	✓		

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50	False Eros Blue	<i>Polyommatus eroides</i>					✓	✓		
51	Higgins' Anomalous Blue	<i>Polyommatus nephohiptamenos</i>				✓				
52	Southern White Admiral	<i>Limenitis reducta</i>		✓		✓				
53	Poplar Admiral	<i>Limenitis populi</i>				✓				
54	Common Glider	<i>Neptis sappho</i>			✓	✓				
55	Peacock Butterfly	<i>Inachis io</i>					✓			
56	Red Admiral	<i>Vanessa atalanta</i>		✓	✓	✓		✓		
57	Painted Lady	<i>Vanessa cardui</i>	✓	✓	✓	✓	✓	✓	✓	✓
58	Small Tortoiseshell	<i>Aglais urticae</i>					✓	✓		
59	Comma Butterfly	<i>Polygonia c-album</i>			✓	✓		✓	✓	
60	Cardinal	<i>Pandoriana pandora</i>			✓	✓	✓			
61	Silver-washed Fritillary	<i>Argynis paphia</i>			✓	✓				
62	High Brown Fritillary	<i>Argynnis adippe</i>			✓					
63	Queen of Spain Fritillary	<i>Issoria lathonia</i>	✓	✓		✓				
64	Marbled Fritillary	<i>Brenthis daphne</i>			✓	✓			✓	
65	Balkan Fritillary	<i>Boloria graeca balcanica</i>					✓			
66	Pearl-bordered Fritillary	<i>Boloria euphrosyne</i>					✓			
67	Weaver's Fritillary	<i>Clossiana dia</i>						✓		
68	Knapweed Fritillary	<i>Melitaea phoebe</i>	✓		✓			✓		
69	Spotted Fritillary	<i>Melitaea didyma</i>	✓	✓	✓					
70	Lesser Spotted Fritillary	<i>Melitaea trivia</i>	✓	✓	✓	✓				
71	Heath Fritillary	<i>Mellicta athalia</i>				✓				
72	Marbled White	<i>Melanargia galathea</i>	✓	✓	✓	✓		✓		✓
73	Great Sooty Satyr	<i>Satyrus ferula</i>				✓				
74	Woodland Grayling	<i>Hipparchia fagi</i>			✓					
75	Eastern Rock Grayling	<i>Hipparchia syriaca</i>			✓					
76	Great Banded Grayling	<i>Hipparchia (=Kanetisa) circe</i>	✓		✓			✓		
77	Freyer's Grayling	<i>Neohipparchia fatua</i>		✓						
78	Scotch Argus	<i>Erebia aethiops</i>								✓
79	Arran Brown	<i>Erebia ligea</i>				✓	✓	✓	✓	
80	Large Ringlet	<i>Erebia euryale</i>				✓	✓	✓	✓	
81	Nicholl's Ringlet	<i>Erebia rhodopensis</i>						✓		
82	Silky Ringlet	<i>Erebia gorge</i>						✓		
83	Ottoman Brassy Ringlet	<i>Erebia ottomana</i>				✓	✓	✓		
84	Black Ringlet	<i>Erebia melas</i>					✓			
85	Bright-eyed Ringlet	<i>Erebia oeme</i>				✓	✓			
86	Meadow Brown	<i>Maniola jurtina</i>	✓		✓	✓		✓		
87	Ringlet	<i>Aphantopus hyperantus</i>	✓		✓	✓		✓		
88	Gatekeeper	<i>Pyronia tithonus</i>			✓	✓				
89	Chestnut Heath	<i>Coenonympha glycerion</i>	✓							
90	Eastern Large Heath	<i>Coenonympha rhodopensis</i>					✓			
91	Small Heath	<i>Coenonympha pamphilus</i>	✓	✓	✓	✓		✓	✓	
92	Speckled Wood	<i>Pararge aegeria</i>			✓	✓				
93	Wall Brown	<i>Lasiommata megera</i>				✓				
94	Northern Wall Brown	<i>Lasiommata petropolitana</i>								✓
95	Large Wall Brown	<i>Lasiommata maera</i>				✓			✓	
96	Nettle Tree butterfly	<i>Libythea celtis</i>			✓	✓	✓			

Dragonflies

1	Banded Demoiselle	<i>Calopteryx splendens</i>	✓	✓	✓	✓				✓
2	Beautiful Demoiselle	<i>Calopteryx virgo</i>	✓		✓	✓				

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3	Blue-tailed Damselfly	<i>Ischnura elegans</i>		✓	✓						
4	Scarce Blue-tailed Damselfly	<i>Ischnura pumilio</i>			✓						
5	White-legged Damselfly	<i>Platycnemis pennipes</i>	✓	✓	✓	✓					
6	Scarce Emerald Damselfly	<i>Lestes dryas</i>					✓				
7	Norfolk Hawker	<i>Aeshna isoceles</i>			✓						
8	Southern Hawker	<i>Aeshna cyanea</i>				✓					
9	Southern Migrant Hawker	<i>Aeshna affinis</i>	✓								
10	Common Hawker	<i>Aeshna juncea</i>					✓	✓			
11	Eastern Spectre Dragonfly	<i>Caliaeshna microstigma</i>			✓						
12	Emperor Dragonfly	<i>Anax imperator</i>			✓						
13	Small Pincertail	<i>Onychogomphus forcipatus</i>				✓					
14	Sombre Goldenring	<i>Cordulegaster bidentata</i>			✓						
15	Balkan Goldenring	<i>Cordulegaster heros</i>			✓	✓	✓				
16	Black Pennant	<i>Selysiothemis nigra</i>			✓						
17	White-tailed Skimmer	<i>Orthetrum albistylum</i>			✓						
18	Black-tailed Skimmer	<i>Orthetrum cancellatum</i>		✓	✓						
19	Keeled Skimmer	<i>Orthetrum coerulescens</i>		✓	✓	✓					
20	Southern Skimmer	<i>Orthetrum brunneum</i>	✓	✓		✓					
21	Banded Darter	<i>Sympetrum pedemontanum</i>			✓						
22	Red-veined Darter	<i>Sympetrum fonscolombii</i>			✓						
23	Spotted Darter	<i>Sympetrum depressiusculum</i>			✓						
24	Scarlet Darter	<i>Crocothemis erythraea</i>		✓	✓						
25	Broad-bodied Chaser	<i>Libellula depressa</i>		✓							
26	Scarce Chaser	<i>Libellula fulva</i>				✓					
27	Four-spotted Chaser	<i>Libellula quadrimaculata</i>					✓				

Moths

Goat Moth, <i>Cossus cossus</i>	Leopard Moth, <i>Zeuzera pyrina</i>
Spurge Hawk-moth, <i>Hyles euphorbiae</i>	Hummingbird Hawk-moth, <i>Macroglossum stellatarum</i>
<i>Typhonia (Melasina) melana</i>	<i>Zygaena angelicae</i>
6-spot Burnet, <i>Zygaena filipendulae</i>	Bloodwort Burnet, <i>Zygaena laeta</i>
Slender Scotch Burnet, <i>Zygaena loti</i>	Narrow-bordered 5-spot Burnet, <i>Zygaena lonicerae</i>
Transparent Burnet, <i>Zygaena purpuralis</i>	Common Forester, <i>Adscita statices</i>
Gypsy Moth, <i>Lymantria dispar</i>	Feathered Footman, <i>Coscinia striata</i>
Scarce Footman, <i>Eilema complana</i>	Common Footman, <i>Eilerna lurideola</i>
Hoary Footman, <i>Eilema caniola</i>	Orange Footman, <i>Eilema sororcula</i>
<i>Eilema pseudocomplana</i>	Four-spotted Footman, <i>Lithosia quadra</i>
Rosy Footman, <i>Miltochrista miniata</i>	Black Arches, <i>Limantria monacha</i>
Grey Mountain Carpet, <i>Entephria caesiata</i>	Northern Spinach, <i>Eulithis populata</i>
Buff Arches, <i>Habrosyne pyritoides</i>	Sussex Emerald, <i>Thalera fimbrialis</i>
Small Emerald, <i>Hemistola Chrysoprasaria</i>	Barred Red, <i>Hylaea fasciaria</i>
Rose-banded Wave, <i>Rhodostrophia vibicaria</i>	Riband Wave, <i>Idaea aversata</i>
Least Carpet, <i>Idaea rusticata</i>	Purple-barred Yellow, <i>Lythria purpuraria</i>
Mullein Wave, <i>Scopula marginepunctata</i>	Least Carpet, <i>Idaea rusticata</i>
Small Rivulet, <i>Perizomaalchemillata</i>	Shaded Broad-bar, <i>Scotopteryx chenopodiata</i>
Silver-ground Carpet, <i>Xantharhoe montanata</i>	Slender Pug, <i>Eupiothecia tenuiata</i>
Dusky Thorn, <i>Ennomos fuscantaria</i>	Peppered Moth, <i>Biston betularia</i>
Mottled Beauty, <i>Alcis repandata</i>	Feathered Beauty, <i>Peribatodes secundaria</i>
Coxcomb Prominent, <i>Ptilidon capucina</i>	Small Chocolate-tip, <i>Clostera pigra</i>

Lobster Moth, <i>Stauropus fagi</i>	Pine Processionary Moth, <i>Thaumetopoea pityocampa</i>
Turnip Moth, <i>Agrotis segetum</i>	Broad-bordered Yellow Underwing, <i>Noctua fimbriata</i>
Langmaid's Yellow Underwing, <i>Noctua janthina</i>	Double Square-spot, <i>Xestia triangulum</i>
Nutmeg, <i>Dicestra trifolii</i>	Bordered Gothic, <i>Heliophobus reticulata</i>
Cabbage Moth, <i>Mamestra brassicae</i>	Beautiful Brocade, <i>Lacanobia contigua</i>
Light Brocade, <i>Lacanobia w-latinum</i>	Pale-shouldered Brocade, <i>Lacanobia thalassina</i>
Brown-line Bright-eye, <i>Mythimna conigera</i>	Varied Coronet, <i>Hadena compta</i>
Lychnis, <i>Hadena bicruris</i>	<i>Hadena laudeti</i>
Dark/Grey Dagger, <i>Acronicta tridens/psi</i>	Coronet, <i>Craniophora ligustri</i>
<i>Auchmis detersa</i>	Olive, <i>Ipimorpha subtusa</i>
White-spotted Pinion, <i>Cosmia diffinis</i>	Dun-bar, <i>Cosmia trapezima</i>
Clouded-bordered Brindle, <i>Apamea crinata</i>	<i>Apamea maillardi</i>
Scarce Brindle, <i>Apamea lateritia</i>	Marbled Minor agg, <i>Oligia agg</i>
Mottled Rustic, <i>Caradrina morpheus</i>	<i>Caradrina suscianja</i>
Marbled Clover, <i>Heliothis viriplaca</i>	Spotted Sulphur, <i>Acontia trabealis</i>
<i>Aegle semicana</i>	Cream-bordered Green Pea, <i>Earias clorana</i>
<i>Phylliophila obliterated</i>	Silver Y Moth, <i>Autographa gamma</i>
Dewick's Plusia, <i>Macdunnoughia confusa</i>	Dark-crimson Underwing, <i>Catocala sponsa</i>
Burnet Companion Moth, <i>Euclidia glyphica</i>	<i>Grammodes bifasciata</i>
The Passenger, <i>Dysgonia algyra</i>	Beautiful Hook-tip, <i>Laspeyria flexula</i>
Spotted Plume, <i>Pollittia galactodactyla</i>	<i>Pyrausta sanguinalis</i>
Mint Moth, <i>Pyrausta aurata</i>	<i>Dysaxxes famula</i>
<i>Dysaxxes fancilla</i>	<i>Crassa unitella</i>
<i>Grapholita orobana</i>	

Mammals

Eastern Hedgehog, <i>Erinaceus concolor (=roumanicus)</i>	Red Squirrel, <i>Sciurus vulgaris</i>
European (Least) Weasel, <i>Mustela nivalis</i>	

Reptiles & Amphibians

Spur-thighed Tortoise, <i>Testudo graeca</i>	Hermann's Tortoise, <i>Testudo hermanni</i>
European Pond Terrapin, <i>Emys orbicularis</i>	Caspian Terrapin, <i>Mauremys caspica</i>
Kotschy's Gecko, <i>Cyrtopodion kotschyi bibroni</i>	Sand Lizard, <i>Lacerta agilis</i>
Eastern Green Lizard, <i>Lacerta viridis</i>	Viviparous Lizard, <i>Zootoca (=Lacerta) vivipara</i>
Common Wall Lizard, <i>Podarcis muralis</i>	Common Frog, <i>Rana temporaria</i>
Marsh Frog, <i>Pelodytes (=Rana) ridibundus</i>	Alpine Newt, <i>Ichthyosaura alpestris</i>

Fish

Balkan Trout, <i>Salmo trutta fario</i>	Western Mosquito-fish, <i>Gambusia affinis</i>
Common Minnow, <i>Phoxinus phoxinus</i>	Sun Perch or Blue-gill, <i>Lepomis gibbosum</i>

Plants

Kindly compiled and researched by John Killingbeck, with 5thanks to Linda Murphy, Steve and Sue Place, Jennifer Mercer and Stoyan Beshkov

PTERIDOPHYTA – Ferns and allies

Equisetum arvense – Common Horsetail – local in moist areas.

Equisetum telmateia – Great Horsetail – very local in wet sites.

Botrychium lunaria – Moonwort – one plant only, grassland, upper Pirin NP.

Asplenium adiantum-nigrum – Black Spleenwort – picnic site day 5, shady rocks.
Asplenium trichomanes – Maidenhair Spleenwort – frequent, shady walls and rocks throughout.
Athyrium filix-femina – Lady Fern – common in shady sites, abundant at altitude in open locations
Cystopteris fragilis – Brittle Bladder Fern – local in sheltered shady rocky locations.
Dryopteris affinis – Scaly Male Fern – local, moist woodland.
Dryopteris filix-mas – Male Fern – generally common in shady sites.
Gymnocarpium dryopteris – Oak Fern – rather local, sheltered rocks particularly at altitude.
Phegopteris connectilis – Beech Fern – infrequent, rather local, sheltered rocks, Pirin NP
Polypodium vulgare – Polypody – very local, shady rocks in woodland.
Polystichum aculeatum – Hard Shield Fern – very local, moist woodland.
Polystichum lonchitis – Holly Fern – locally quite frequent at altitude among rocks, Pirin NP.
Pteridium aquilinum – Bracken – generally widespread at moderate altitude.
 A Buckler fern of some sort was also seen.

GYMNOSPERMS:

PINACEAE – Pine family

Abies borisii-regis – King Boris's Fir – common at altitude.
Larix decidua – Larch – frequent at altitude
Picea abies – Norway Spruce – common at altitude in the wild, commonly planted at lower levels.
Pinus heldreichii (leucodermis) – Bosnian Pine – locally common at altitude, Pirin NP.
Pinus mugo – Dwarf Mountain Pine – common at altitude, rocky slopes and screes.
Pinus nigra – Black Pine – generally common at most levels.
Pinus peuce – Macedonian Pine – locally common at altitude, Pirin and Rila.
Pinus sylvestris – Scots Pine – generally common and widespread, particularly at altitude.

CUPRESSACEAE – Cypress family

Cupressus sempervirens – Mediterranean Cypress – frequent in warmer localities, often planted.
Juniperus communis – Common Juniper – common at altitude, scrub and rocky places.
Juniperus oxycedrus – common at lower levels, dry scrub and rocks.

ANGIOSPERMS: DICOTYLEDONS

ADOXACEAE

Sambucus ebulus – Danewort – common in most reasonably moist places.
Sambucus nigra – Elder – fairly frequent in scrub.
Sambucus racemosa – Red Berried Elder – frequent in woods and scrub at altitude.

AMARANTHACEAE

Amaranthus lividus – common, cultivated ground.

ANACARDIACEAE

Cotinus coggygria – Smoke Bush – fairly frequent, dry scrub, roadsides.
Pistacia terebinthus – Turpentine tree – frequent in dry scrub.
Rhus typhina – Stag's Horn Sumach – alien, in gardens.

APIACEAE – Carrot family – there were many of these that could not be ID without references.

Angelica sylvestris – Angelica – moist woodland margins etc.
Berula erecta – seen in one stream.
Bupleurum sibthorpiana – Sickie Hare's-ear – frequent in dry grassland and rocks.
Daucus carota – Wild Carrot – very common in grassland etc.
Eryngium campestre – Field Eryngo – very common in dry grassland, scrub etc.

Foeniculum vulgare – Fennel- quite frequent in grass and scrub.
Heracleum sibiricum - Siberian Hogweed – frequent moist verges etc, moderate altitude.
Heracleum sphondylium – Hogweed – local in cool meadows etc.
Ligusticum mutelliana – Alpine Lovage – frequent at altitude.
Orlaya grandiflora – perhaps frequent but ID uncertain.
Pastinaca sativa – Wild Parsnip – generally common in grass etc.
Sanicula europaea – Sanicle – locally frequent in woods.
Torilis japonica – Hedge Parsley – frequent in grass etc.

ARALIACEAE

Hedera helix – Ivy – in shady woods.

APOCYNACEAE (ASCLEPIADACEAE)

Cynanchum acutum – Strangewort – twice seen, thickets at low altitude
Periploca graeca – Silk Vine – common, scrub and thickets to moderate altitude.

ARISTOLOCHIACEAE

Aristolochia rotunda (or *A. clematitis*?) – Birthwort – very local, scrub.

ASTERACEAE – Daisy family – many of these could not be identified reliably.

Achillea clusiana – frequent, rocky grassy places.
Achillea millefolium – Yarrow – common in grass.
A. clypeolata & *A. coarctata* (Yellow Yarrows were seen but uncertain ID)
Achillea crithmifolia – dry rocky places, scrub etc.
Anthemis tinctoria – Yellow Chamomile – one roadside.
Arctium minus – Lesser Burdock – frequent in moist verges clearings etc.
Artemisia absinthium – Wormwood – common, dry grass, scrub etc.
Artemisia vulgaris – Mugwort – common, waste ground, roadsides, scrub etc.
Calendula officinalis – Marigold – in gardens.
 Thistles and Knapweeds (*Carduus*; *Centaurea*; *Cirsium*) – very numerous in grassland, scrub and meadows but few ID with any certainty- including possibly the following:
Carduus personata – Great Marsh Thistle – fairly sure ID
Carduus pycnocephalus?
Centaurea affinis?
Centaurea calcitrapa – Red Star thistle – confident ID.
Centaurea diffusa – fairly sure ID.
Centaurea jacea?
Centaurea nervosa?
Centaurea orientalis – fairly sure ID.
Centaurea rutifolia?
Centaurea salonitana – fairly sure ID.
Centaurea solistalis – confident ID
Centaurea stoebe?
Cirsium arvense – Creeping Thistle – confident ID
Cirsium canum?
Cirsium creticum?
Cirsium vulgare – confident ID
Chondrilla juncea – Skeletonweed – dry grass, waysides – fairly confident ID
Cicerbita alpina – Alpine Sow-thistle – local, moist verges and glades at altitude, Rila.
Cichorium intybus – Chicory – very common, grass and scrub to moderate altitude

Conyza canadensis – Canadian Fleabane – common alien weed.
Crepis capillaris – Smooth Hawkweed – moist grass.
Doronicum austriacum – Austrian Leopard's-bane – frequent at altitude
Echinops bannaticus & *sphaerocephalus* – Globe Thistles – the latter and perhaps both seen in grassland.
Erigeron acer – Blue Fleabane – infrequent, stony, scrubby places etc.
Erigeron atticus – Greek Fleabane – grassy scrub.
Eupatorium cannabinum – Hemp Agrimony – moist meadows etc.
Galinosoga parviflora – Gallant Soldier – disturbed ground, seen once in quantity.
Hieracium sp. – Woolly Hawkweed – one or two possibilities answer this description!
Hypochoeris sp. – Cat's-ear – moist grassy places
Inula conyza – Ploughman's Spikenard – occasional, rocky places.
Lactuca serriola – Prickly Lettuce – common, waysides, scrub, fields.
Lapsana communis – Nipplewort – fairly common generally.
Leucanthemum vulgare – Ox-eye Daisy – moist meadows.
Matricaria discoidea – Pineapple Weed – disturbed ground, fields.
Mycelis muralis – Wall Lettuce – frequent in moist shady places.
Onopordon Illyricum – Illyrian Scotch Thistle – common, scrub, dry grassland – mostly moribund.
Petasites albus (*P. hybridus*?) – Butterbur – Frequent by cool shady rivers.
Pilosella aurantiaca – Orange Hawkweed – occasional in moist meadows.
Pilosella officinarum – Mouse Ear hawkweed – frequent in short grass etc at moderate altitude.
Prenathes purpurea – frequent in moist and shady places.
Scolymus hispanicus – Spanish Oyster Thistle – common, dry scrubby places etc.
Senecio nemorensis – Wood Ragwort – quite common in meadows, thickets at altitude.
Sonchus oleraceus – Smooth Sow-thistle – occasional generally.
Tanacetum vulgare – Tansy – frequent in grassland. Other species of *Tanacetum* could not be ID.
Taraxacum officinale – Dandelion – moist meadows.
Telekia speciosa – Heart Leaved Ox-eye – frequent, moist woods, clearings nr. Rila.
Tripleurospermum inodorum – Mayweed – fields and waysides.
Tussilago farfara – Coltsfoot – slopes, bare places, mostly at altitude.
Xanthem spinosum – Spiny Cocklebur – dry scrubby places, frequent.
Xeranthemum annuum – Pink Everlasting – common in dry scrub, grassland etc.

BERBERIDACEAE

Berberis vulgaris – Barberry – local in scrub.

BETULACEAE

Alnus glutinosa – Alder – widely common in woods, stream sides etc.
Alnus incana – Grey Alder – woods nr. Rila.
Alnus viridis – Green Alder – scrub nr. Rila.
Betula pendula – Silver Birch – common in open woods, often planted.

BIGNONIACEAE

Catalpa bignoniodes – Indian Bean Tree – alien, usually planted but sometimes feral.

BORAGINACEAE

Anchusa azurea (italica) – Italian Bugloss – waste ground Bansko.
Buglossoides arvensis – Field Gromwell – one site only, Perin NP.
Buglossoides purpureocaerulea – Blue Gromwell – fairly frequent, dry scrub and grass.
Cerinth minor – Lesser Honeywort – fairly frequent, grassy thickets.
Cynoglossum hungaricum – fairly frequent in scrubby places.
Echium vulgare – Viper's Bugloss – common, dry grass and scrub.

Echium italicum – Italian Bugloss – as above.

Heliotropium europaeum – Heliotrope – cultivated fields.

Myosotis scorpioides – Water Forget-me-not – streams. Other *Myosotis* seen were not ID.

Onosma (arenaria?) – Golden Drops- rather infrequent, rocky places, Perin.

Pulmonaria sp. – leaves only – woodland.

BRASSICACEAE – few of these could be ID.

Arabis sp. (*hirsuta*) – Hairy Rock-cress – local, dry upland places, seeds only but ID fairly confident.

Cardamine bulbifera – Coralroot Bittercress – one location, under beech.

Cardamine sp. – moist stream side, Perin.

Nasturtium (Rorippa) officinale – Watercress – one stream.

Sisymbrium officinale – Hedge Mustard – occasional in rough ground etc.

BUDDLEIACEAE

Buddleia davidii – frequent, scrub, waste ground etc.

CAMPANULACEAE – sometimes difficult to ID correctly.

Asyneuma canescens – one site, scrubby grass, Perin.

Campanula alpina – Alpine Bellflower – frequent at altitude, Perin.

Campanula glomerata – Clustered Bellflower – one site, meadow.

Campanula lingulata – a few open places at altitude, Perin.

Campanula patula – Spreading Bellflower – common in grassland.

Campanula persicifolia – Peach Leaved Bellflower – one roadside, Perin.

Campanula rapunculus – Rampion Bellflower – occasional in grass.

Campanula trachelium – Nettle leaved Bellflower – roadside and scrubby sites at moderate altitude.

Jasione bulgarica – Bulgarian Sheep's-bit – alpine pastures, frequent, ID uncertain.

Jasione montana – Sheep's-bit – occasional, rocky places, Pirin.

CANNABINACEAE

Celtis australis – Nettle Tree – fairly common, thickets, woods, scrub etc at low altitude.

Humulus lupulus – Hop – very frequent, thickets, scrub etc.

CAPRIFOLIACEAE

Lonicera xylosteum – Fly Honeysuckle – frequent in spruce woods at altitude.

Valeriana officinalis – Common Valerian – local in cool moist places.

CARYOPHYLLACEAE – Pink Family – This group proved one of the hardest to ID because there were so many species.

The following are included as likely to be correct. (* these two were hard to separate retrospectively).

Arenaria spp. – Sandworts – there seemed to be a number of these - not ID.

Cerastium alpinum – Alpine Stitchwort – rocky places, Pirin

Cerastium arvense – Field Mouse Ear – in grass at altitude? But ID uncertain.

Cerastium fontanum – Mouse-ear Chickweed – seen in moist grassy areas.

Cerastium tomentosum – Snow-in-summer – local, dry grass at altitude, Pirin.

Dianthus cruentus – occasional, rocky places, Pirin. Fairly confident ID.

Dianthus deltoides – Maiden Pink – frequent in dry grassland etc.

Dianthus giganteiformis – Tall Pink – quite frequent, rocky areas. Fairly confident ID.

Dianthus gratianopolitanus – Cheddar Pink – doubtful ID.

**Dianthus microlepis* – perhaps frequent at altitude but uncertain ID.

Silene (Lychnis) coronaria – Rose Champion – dry grass and thickets.

Silene (Lychnis) flos-cuculi – Ragged Robin – damp meadow, day 4.

Sagina procumbens – Procumbent Pearlwort – probably common, short grass, bare areas.

Saponaria officinalis – Soapwort – generally common in grassland etc.

Scleranthus perennis – Perennial Knawlweed – quite frequent, stony places.

**Silene acaulis* – perhaps frequent at altitude but uncertain ID.

Silene alba – White Campion – grassy places.

Silene armeria (or perhaps *S. compacta*?) seen once – rock face, Melnic.

Silene nutans – Nottingham Catchfly – occasional, grassy places, thickets.

Silene otites – Spanish Catchfly – dry fields etc., uncertain ID

Silene pusilla – local, fairly frequent in some dry, stony places.

Silene roemerii – local, infrequent.

Silene vulgaris – Bladder Campion – generally widespread.

Stellaria graminea – Lesser Stitchwort – common in grass.

CELASTRACEAE

Euonymus europaeus – Common Spindle – occasional in scrub.

Euonymus latifolius – Large Leaved Spindle – thickets, wood edges, Rila.

CHENOPODIACEAE

Chenopodium album – Fat Hen – generally common, disturbed ground.

Chenopodium bonus-henricus – Good King Henry – frequent in moist grassland.

CISTACEAE

Helianthemum nummularium – Common Rock-rose – frequent in short grass, rocks etc. at altitude.

Helianthemum sp. (apenninum? – grey leaves but no flowers) – rocks, Perin.

Tuberaria sp. (*guttata*?) – seen once, dry scrub. Uncertain ID.

CONVOLVULACEAE

Calystegia sepium – Hedge Bindweed – common in moist thickets etc.

Convolvulus altheoides? – Mallow-leaved Bindweed – dry scrub, uncertain ID

Convolvulus arvensis – Field Bindweed – common in grassy places, fields.

Cuscuta campestris – a Dodder – generally frequent in thickets and grassy places.

Cuscuta europaea – Greater Dodder- one locality, nr. Perin.

CORNACEAE

Cornus mas – Cornelian Cherry – fairly frequent, scrub, thickets etc.

Cornus sanguinea – Dogwood – common, woods, scrub and thickets.

CORYLACEAE

Carpinus betulus – Hornbeam – plausibly frequent in moderate altitude woods but no definite ID*.

Carpinus orientalis – Oriental Hornbeam – frequent in woods, rocky scrub etc at moderate altitude.

Corylus avellana – Hazel – very frequent in moist woods and thickets.

Ostrya carpinifolia – Hop Hornbeam – frequent in woods. Hard to separate from Hornbeam without close examination.*

CRASSULACEAE

Sedum acre – Biting Stonecrop – fairly frequent, dry places and rocks.

Sedum album – White stonecrop – quite common, dry grass, rocks etc.

Sedum alpestre – Alpine Stonecrop – quite frequent at altitude.

Sedum ochroleucrum – Creamish Stonecrop – frequent on rocks at moderate altitude.

Sedum telephium – Orpine – locally frequent on rocky sites, Rila.

Sempervivum (Jovibarba) heuffelii (or other sp.?) – Houseleek – fairly frequent at altitude.

DIPSACACEAE (now in CAPRIFOLIACEAE)- several Scabious species were common but hard to ID at the time or retrospectively. The following are probable sightings:

Dipsacus fullonum and *D. laciniatus* – Teasels – the latter probably more common but no definite ID.

Knautia midzorensis – fairly confident ID.

Scabiosa argentea – confident ID.

Scabiosa lucida – Shining Scabious - doubtful ID.

Scabiosa ochroleuca – Yellow Scabious – fairly confident ID.

Succisa pratensis – Devil's-it Scabious – in alpine pasture, leaves only, uncertain ID.

ELAEAGNACEAE

Elaeagnus angustifolia – Oleaster – frequent, dry scrub and roadsides.

Parnassia palustris – Grass-of-Parnassus - very local, wet seeps, high Pirin.

ERICACEAE

Bruckenthalia spiculifolia – quite frequent in alpine pastures.

Moneses uniflora – One Flowered Wintergreen – one colony seen, shady woods, Pirin.

Monotropa hypopitys – Yellow Bird's Nest – one plant, upper Pirin NP.

Orthilia secunda – Serrated Wintergreen – very infrequent, shady woods, Pirin.

Vaccinium myrtillus – Bilberry – quite common in moist woods and open areas.

EUPHORBIACEAE – one curious anomaly (see below*).

Euphorbia amygdaloides – Wood Spurge – common, woods, thickets etc at moderate altitude.

Euphorbia cyparissias – Cypress Spurge – generally very common, in many habitats.

Euphorbia myrsinites – Glaucous Spurge – quite frequent in rocky places, moderate altitude.

Euphorbia peplis - (Purple Spurge) - fairly frequent, bare areas, paths etc.

Euphorbia serrulata – Upright Spurge – quite frequent, open habitats.

*The commonest larger Euphorbia (very widespread in dry grass and scrub) more closely resembled *E. paralias* than anything else, though seems unlikely to be so. It seems distinct from all those mentioned on the official list.

FABACEAE – another large group with many plants unidentifiable with any certainty.

Amorpha fruticosa – Bastard Indigo – widespread in thickets, scrub, roadsides, alien.

Anthyllis vulneraria – kidney Vetch – seen once in grass.

Astragalus glycyphyllos – wild Liquorice – frequent nr. Rila, wood edge habitats.

Bituminaria (Psoralea) bituminosa – Pitch Trefoil – in dry grass.

Cercis siliquastrum – Judas Tree – infrequent in scrub, roadsides etc.

Colutea arborescens – Bladder Senna – fairly frequent in scrub.

Cytisus (Chamaecytisus) hirsutus – Hairy Broom – common generally, low to high altitude.

Dorycnium pentaphyllum – Canary Clover – frequent in dry scrub and grass.

Galega officinalis – Goat's-rue – occasional in moist grass.

Genista tinctoria – Dyer's Greenweed – common in pastures mainly at high altitude.

Gleditsia triacanthos – Honey Locust – alien, frequent, naturalised in scrub, woods, roadsides.

Laburnum anagyroides – Laburnum – occasional in scrub etc.

Lathyrus pratensis – Yellow Vetchling – local in moist grass.

Lotus corniculatus – Bird's-foot trefoil – common in moist grass. (N.B. a similar more densely flowered sp. was commoner – no ID).

Lotus pedunculatus – Greater BFT – probably frequent on wet sites but no definite ID.

Medicago sativa – Lucerne – frequent in grass, fields etc.

Melilotus albus – White Melilot – frequent in open habitats.

Onobrychis montana – Mountain Sainfoin – Frequent in grass at altitude.

Ononis spinosa - Spiny Restharrow – frequent in dry scrub, grass etc.

Robinia pseudoacacia – False Acacia – alien, very common, scrub, open woods, roadsides.
Securigera (Coronilla) varia – Crown vetch – very common almost everywhere.
Spartium junceum – Spanish Broom – quite frequent, dry scrub, roadsides etc.
Trifolium angustifolium (or similar sp.) – Narrow Leaved crimson clover – frequent, dry grass etc.
Trifolium arvense – Hare's-foot Clover – open sites, paths etc.
Trifolium badium – (similar to Hop trefoil, below) - frequent, grassy habitats.
Trifolium campestre – Hop Trefoil – quite frequent in grass and bare habitats etc.
Trifolium dalmaticum – doubtful ID.
Trifolium fragiferum – Strawberry Clover – locally frequent in moist places, Sturma Lakes.
Trifolium medium – Zig Zag Clover – frequent at wood edges, roadsides etc. moderate altitude.
Trifolium pratense – Red Clover – frequent in moist grass.
Trifolium repens – White Clover – as above.
Trifolium stellatum – Starry Clover – quite frequent in dry grass, moribund.
Vicia cracca - Tufted Vetch- frequent in grass.
Vicia hybrida – Hairy yellow vetch – quite frequent in dry grass, scrub etc.
Vicia varia – similar to *V. villosa* below – uncertain ID., frequent in grass.
Vicia villosa – Fodder Vetch – see above.

FAGACEAE

Castanea sativa – Sweet chestnut – infrequent – moderate altitude woods.
Fagus sylvatica – Beech – common in moist upland forest.
Quercus cerris – Turkey Oak – local in moderate altitude woods.
Quercus coccifera – Kermes Oak – seen once, dry lowland scrub.
Quercus frainetto – Hungarian Oak – local, moderate altitude scrub, woods.
Quercus petraea – Sessile Oak – local, in woods, Rila.
Quercus pubescens – Downy Oak – common in dry scrub and woods.

GENTIANACEAE

Centaureum erythraea – Common Centaury – infrequent in bare grassy places.
Gentiana asclepidea – one plant, wood edge, Rila. (leaves only).
Gentiana cruciata – Cross gentian – leaves only, uncertain ID. High pastures.
Gentiana lutea – Great Yellow Gentian – very local, high Pirin.

GERANIACEAE

Erodium cicutarium – Common Stork's-bill – open habitats.
Geranium macrorrhizum – Rock Crane's-bill – common in woods and grassy places.
Geranium lucidum – Shining Cranesbill – seen in grass.
Geranium phaeum – Dusky Crane's-bill – local in cool grassy places and thickets.
Geranium pyrenaicum – Hedgerow Crane's-bill – generally frequent.
Geranium robertianum – Herb Robert – as above.
Geranium sanguineum – Bloody Crane's-bill – locally frequent – upper Pirin.
Geranium sylvaticum – Wood Crane's-bill – common in cool grassy places to high altitude.

GROSSULARIACEAE

Ribes petraeum – Rock Red Currant – high level woods and thickets.

HALOGRACEAE

Myriophyllum spicatum - Spiked Water Milfoil – Sturma lake.

HYPERICACEAE – several, generally common similar species needing, but not given, close examination.

Hypericum linearoides – common? but uncertain ID.

Hypericum maculatum - Imperforate St John's Wort - as above

Hypericum perforatum - Perforate St. John's wort - as above

Hypericum tetrapterum – Square Stalked St John's wort – local, moist sites.

N.B another rather interesting species noted nr. Ski lifts, but not accessible.

JUGLANDACEAE

Juglans regia – Walnut – common both wild and in cultivation, woods, roadsides, streets.

LAMIACEAE – another large family with many omissions and doubts.

Acinos alpinus - Alpine Calamint – common in short grass, rocky places etc.

Acinos arvensis – Basil Thyme – occasional, dry scrub.

Ajuga laxmannii – infrequent, moist woods etc. at altitude.

Ajuga reptans – Common Bugle – in moist shady woods.

Ballota nigra – Black Horehound – Common in dry scrub and grass.

Galeopsis sp. - Hemp Nettles –more than one species but no flowers, uncertain ID.

Lamium garganicum – Large Red Dead Nettle – quite frequent in dry grass etc.

Lycopus europaeus – Gipsy-wort – frequent in wet places.

Marrubium peregrinum – common in dry grass and scrub.

Melissa officinalis – Balm – quite frequent in moist grass etc.

Mentha longifolia – Horse-mint – common in moist grassy places.

Mentha pulegium – Pennyroyal – local in wet places – Sturma lake.

Mentha spicata - Spear Mint – moist grassy places.

Nepeta pannonica – common in many grassy places.

Origanum vulgare – Marjoram – common in grass, scrub and rocks.

Prunella laciniata – Cut Leaved Self-heal – local in grass.

Prunella vulgaris – Self-heal – frequent in grass etc.

Salvia glutinosa – Sticky Sage – doubtful ID, leaves only, shady places.

Salvia verticillata – Whorled Clary – waste ground, Melnik.

Satureja montana – Savory – in dry scrub, ID fairly confident.

Scutellaria alpina – Alpine Skullcap – quite frequent, pastures at altitude.

Stachys sylvatica – Hedge woundwort – local, moist shady places.

Teucrium chamaedrys – Wall Germander – generally common, especially dry areas.

Teucrium montanum – Mountain Germander – frequent, rocky places at altitude.

Thymus pulegioides – Large Wild Thyme – common in short grass. Other thyme species, perhaps several, seemed to occur but no ID.

LENTIBULARIACEAE

Pinguicula balcanica – Balkan Butterwort – local, wet seeps (presumably this sp.).

LINACEAE

Linum catharticum – Fairy Flax – local, dry open habitats.

LYTHRACEAE

Lythrum salicaria – Purple Loosestrife – frequent in damp places.

MALVACEAE – not well examined.

Alcea rosea – Hollyhock – fairly frequent, dry grass and scrub.

Althea officinalis – Marsh Mallow – doubtful ID from possible leaves.

A small flowered mallow with heavily cut cannabis like leaves was also seen – no ID.

Tilia cordata – Small Leaved Lime – quite frequent in woods and sometimes street planted.

Tilia platyphyllos – Large Leaved Lime – frequent in woods, often planted in streets, parks etc.

Tilia tomentosa – White Lime – frequent in woods and widely street/park planted.

MORACEAE

Ficus carica – Fig – common in cultivation in warmer areas, also scrub, roadsides etc.

Morus alba – White Mulberry – common, woods, scrub, roadsides, often planted in streets, parks.

Additional species:

Broussonetia papyrifera – Paper Mulberry – quite frequent, woods, roadsides etc, alien.

OLEACEAE

Fraxinus angustifolia – Narrow Leaved Ash – common in woods, scrub, roadsides and streets.

Fraxinus excelsior – Common Ash – local, cool upland forests – nr. Rila.

Fraxinus ornus – Manna Ash – common, scrub and dry woods.

Jasminum fruticans – Wild Jasmine – frequent in dry scrub.

Ligustrum vulgare – Wild Privet – frequent in scrub etc.

Syringa vulgaris – Lilac – frequent in scrub, roadsides etc.

ONAGRACEAE – not closely examined.

Circaea lutetiana – Enchanter's Nightshade – shady places.

Epilobium alpestre – Alpine Willowherb – seen once on rocks.

Epilobium (Chamerion) angustifolium – Rosebay Willowherb – generally common.

Oenothera (biennis) – Evening Primrose – rough ground, nr. river – final transit day.

OROBANCHACEAE

Euphrasia minima – Dwarf Eyebright – quite frequent at altitude in grass.

Euphrasia officinalis agg. – Eyebright – quite frequent in moist grass at moderate altitude.

Melampyrum nemorosum – Wood Cow-wheat – locally frequent in moist woods at altitude.

Odontites verna – Red Bartsia – fairly frequent, moist grass.

Orobanche sp. (probably *O. alba*) – Thyme Broomrape – seen at least once but ID uncertain. Many moribund stems of broomrapes seen.

Pedicularis sp. (*orthantha*?) – Lousewort (dark red) – frequent, high altitude, ID uncertain.

Rhinanthus minor* – Yellow Rattle – frequent in moist grass. * *Rhinanthus* were not differentiated so ID uncertain and other spp. possible.

OXALIDACEAE

Oxalis acetosella – Wood Sorrel – occasional, shady moist woods.

PAPAVERACEAE

Chelidonium majus – Greater Celandine – quite frequent and widespread.

Papaver rhoeas – Common Poppy – frequent, fields, scrub etc.

PHYTOLACCACEAE

Phytolacca sp. (perhaps *P. americana* or *acinosa*) – Poke Weed – alien, occasional.

PLANTAGINACEAE

Antirrhinum majus – Snapdragon – on walls etc.

Digitalis lanata – Woolly Foxglove – local, dryish habitats, largely moribund.

Digitalis viridiflora – Green Flowered Foxglove – frequent in many habitats.

Linaria genistifolia – Dalmatian Toadflax – frequent in open dry places etc. ID fairly confident.

Linaria vulgaris – Common Toadflax – fairly widespread in grass.

Plantago arenaria – Branched Plantain – frequent, dry grass etc.

Plantago major – Greater Plantain – frequent, paths bare places.

Plantago media – Hoary Plantain – occasional in grass.

Veronica anagallis-aquatica – Blue Water Speedwell – local, infrequent near water.

Veronica beccabunga – Brooklime – local near water.

Veronica bellidoides – Violet Speedwell – fairly frequent at altitude, grass and stony alpine.

*Veronica chamaedrys** – Germander Speedwell – quite frequent in moist grassy places etc.

*Veronica montana** – Wood Speedwell – similar to above – ID not differentiated.

Veronica officinalis – Heath Speedwell – local, shady places near woods.

Veronica persica – Persian Speedwell – disturbed ground.

PLATANACEAE

Platanus orientalis – Oriental Plane – frequent mainly along river banks, to moderate altitude, also towns, parks. N.B.

London Plane (*P. x. hispanica*) more rarely planted.

POLYGALACEAE

Polygala major – Large Milkwort – quite frequent, grassy places at altitude, Pirin.

Polygala vulgaris – Common Milkwort – less conspicuous than above, in grass.

POLYGONACEAE

Fallopia japonica – Japanese Knotweed – occasional by roadsides etc.

Persicaria amphibia – Amphibious Bistort – local in wet places.

Persicaria hydropiper – Water pepper – local, wet places.

Polygonum aviculare – Knotgrass – common on bare ground paths etc.

Persicaria maculosa – Redshank- seen occasionally.

Rheum raponticum – Wild Rhubarb – very local, rock face, Rila.

Rumex acetosa – Sorrel – frequent in moist grassland.

Rumex acetosella – Sheep's Sorrel – frequent as above.

Rumex alpinus – Monk's Rhubarb – common at altitude in grassland and rocks.

Rumex obtusifolius – Broad Leaved Dock - seen from time to time.

PORTULACACEAE

Portulaca oleraceae – Yellow Purslane – quite frequent on bare sites, paths etc.

PRIMULACEAE

Lysimachia vulgaris – Yellow Loostripe – occasional, moist shady sites.

Primula veris – Cowslip – local, grass and wood edges at altitude (not flowering).

Another possible small alpine primula at v high level seen, but no flowers or ID.

RANUNCULACEAE

Actea spicata – Herb Christopher – one plant only, woods, Rila.

Anemone sp. (possibly *A. ranunculoides*) – under Beech, leaves only.

Caltha palustris – Marsh Marigold – local, cool wet places.

Clematis vitalba – Traveller's Joy – common almost everywhere.

*Consolida regalis** – Forking Larkspur – common in dry grass, scrub, arable.

*Nigella arvensis** – Love-in-a-mist – as above.

*these two the most likely species, but ID not certain.

Ranunculus aconitifolius – local, damp shady places, Rila. uncertain ID.

Ranunculus acris – Meadow Buttercup – frequent in moist grass.

Ranunculus aquaticus – Crowfoot – local in water, Pirin.

Ranunculus repens – Creeping Buttercup – cool damp places.

Thalictrum flavum – Common Meadow Rue – occasional in grass at altitude, Pirin.

Thalictrum (alpinum?) – Alpine Meadow Rue – smaller daintier than *T. flavum*, high meadows uncertain ID.

RESEDACEAE

Reseda lutea – Mignonette – frequent, dry and grassy places.

RHAMNACEAE

Frangula alnus – Alder Buckthorn – one plant, wasteland, Melnic.

Paliurus spina-christi – Christ's Thorn – common in dry scrubby areas.

ROSACEAE – some doubts particularly regarding *Potentilla*.

Agrimonia eupatoria – Agrimony – quite common in many grassy habitats.

Alchemilla mollis agg. – Lady's Mantle – frequent in moist meadows of moderate to high altitude.

Cotoneaster nebrodensis – occasional in scrub and woods, high Pirin.

Crataegus monogyna and *C. rhidiphylla* (*C. laciniata*) – Common and Eastern Hawthorns – thorns were quite frequent in scrub, but ID not differentiated.

Cydonia oblonga – Quince – frequent in cultivation.

Filipendula ulmaria – Meadow Sweet – frequent in cool moist meadows.

Filipendula vulgaris – Dropwort – seen in a few meadows.

Fragaria vesca – Wild Strawberry – quite common at altitude.

Geum coccineum – Red Avens – frequent at high altitude in moist grass, stream sides etc.

Geum montanum – Alpine Avens – as above but commoner.

Geum rivale – Water Avens – occasional by streams at altitude.

Geum urbanum – Wood Avens – frequent in shady places.

Malus domestica – Apple – mostly cultivated, perhaps feral.

Potentilla aurea – Golden Cinquefoil – at altitude but doubtful ID.

Potentilla reptans – Creeping Cinquefoil – generally common.

Prunus armeniaca – Apricot – usually cultivated but sometimes feral near villages.

Prunus avium – Wild Cherry – frequent in woods etc.

Prunus cerasifera – Mirabelle Plum – common almost everywhere.

Prunus domestica – Wild (feral) Plum – in scrub near villages perhaps.

Prunus dulcis – Almond – usually cultivated but sometimes feral near villages.

Prunus persica – Peach – in cultivation, but perhaps not feral.

Prunus spinosa – Blackthorn – common in scrub and thickets.

Pyrus amygdaliformis – Almond-leaved Pear – common in dry scrub.

Pyrus communis – Pear – in cultivation, perhaps feral*

Pyrus sp.* - Wild Pear – another pear with small leaves, ID unknown, common as above.

Rosa pendulina – Alpine Rose (deep pink) – high altitude thickets perhaps but difficult ID.

Rosa pimpinellifolia – Burnet Rose – quite frequent in thickets etc.

Rosa tomentosa – Downy Rose – some roses were downy, yes! Difficult ID.

Rubus caesius – Dewberry – quite common in thickets etc.

Rubus fruticosus agg. – Bramble – common in thickets.

Rubus idaeus – Raspberry – frequent in moist thickets etc. at altitude.

Sanguisorba minor – Salad Burnet – quite frequent in grass.

Sorbus aria – Whitebeam – seen once, upper Pirin.

Sorbus aucuparia – Mountain Ash – common in woods and scrub etc. at altitude.

RUBIACEAE

Asperula aristata – quite common in dry and rocky places, fairly confident ID.

- Cruciata laevipes* – Crosswort – quite frequent in moist grass.
Galium mollugo – White Beadstraw – as above.
Galium odoratum – Woodruff – frequent in woods at moderate altitude.
Galium verum – Lady's Bedstraw – very common in grassland and scrub generally.
Sherardia arvensis – Field Madder – seen on bare ground.

SALICACEAE

- Populus alba* – White Poplar – common along watercourses etc.
Populus nigra – Black Poplar – as above – includes P.n. 'Italica' (Lombardy Poplar).
Populus tremula – Aspen – rather local, woods and copses at moderate altitude.
Populus x canadensis – Hybrid Black Poplar – common in similar places to P. nigra.
Salix alba – White willow – common along watercourses etc.
*Salix caprea** – Goat willow – frequent in woods and copses etc.
*Salix cinerea** – Grey Willow – as above (*variable and probably hybridised together).
Salix fragilis – Crack Willow – as S.alba but less frequent and probably hybridised at times.

SAPINDACEAE (ACERACEAE)

- Acer campestre* – Field Maple – fairly common in woods and scrub to moderate altitude.
Acer heldreichii – Heldreich's Maple – local at altitude, nr. Rila.
Acer hyrcanum – Balkan Maple – as above.
Acer monspessulanum – Montpelier Maple – local, dry scrub at low levels.
Acer negundo – Box Elder Maple – alien, widely naturalised in woods, scrub etc.
Acer platanoides – Norway Maple – common in moist woods at moderate altitude, planted widely.
Acer pseudoplatanus – Sycamore – common in moist woods as above, sometimes planted.
Aesculus hippocastanum – Horse Chestnut – mainly planted, streets parks etc, perhaps naturalised.

SAXIFRAGACEAE

- Saxifraga paniculata* – Livelong Saxifrage – local on rocks at altitude. ID fairly confident.
Saxifraga rotundifolia – Round Leaved Saxifrage – frequent in moist places, streams etc at altitude.
Saxifraga stellaris – Star Saxifrage – as above.

SCROPHULARIACEAE – a large group with many missed and or doubtful ID.

- Scrophularia* scopoli* – Italian Figwort – local, wet places, ID fairly confident, but *other spp. not noted/differentiated.
Verbascum – striking and common plants in a variety of open habitats but various species not confidently ID, probably include the following:
Verbascum longifolium/pannosum – perhaps the commonest species but ID uncertain.
Verbascum nigrum – Dark Mullein – in grassy places perhaps.
Verbascum sinuatum – Wavy-leaf Mullein – fairly confident ID.
Verbascum speciosum – frequent but uncertain ID.
Verbascum thapsus – Great Mullein – in various places.

SIMAROUBACEAE

- Ailanthus altissima* – Tree of Heaven – very common, woods thickets, roadsides etc. alien.

SOLANACEAE

- Atropa belladonna* – Deadly Nightshade – one plant, Pirin.
Datura stramonium – Thorn Apple – local, disturbed ground – alien.
Solanum dulcamara – Bittersweet – local, moist thickets etc.
Solanum nigrum – Black Nightshade – local, disturbed ground etc.

TAMARICACEAE

Tamarix smyrnensis – Tamarisk – quite frequent, thickets, roadsides etc.

THYMELAEACEAE

Daphne mezereum – Mezereon – local in woods particularly Rila, in berry.

Daphne oleoides – Locally frequent on rocks, moderate altitude, Perin.

ULMACEAE

Ulmus glabra – Wych Elm – frequent in moist woods at altitude, local, Rila.

Ulmus minor (type) – Small Leaved Elm – common in scrub and thickets, particularly low altitude.

URTICACEAE

Parietaria judaica – Pellitory-of-the-wall – common near buildings in most places.

Urtica dioica – Stinging Nettle – generally common in many places.

VERBENACEAE

Verbena officinalis – Vervain - quite common in dry grassland, scrub etc.

VIOLACEAE

Viola arvensis – Field Pansy – occasional in fields etc.

Viola gracilis – (yellow form) – locally frequent at altitude nr. Rila, ID uncertain.

Viola tricolor – Heartsease - in fields and grass, infrequent.

VITACEAE

Parthenocissus quinquefolia – Virginia Creeper – occasionally naturalised in woods etc.

Vitis vinifera – Grape Vine – widely cultivated and frequently feral at lower altitude.

ZYGOPHYLLACEAE

Tribulus terrestris – Maltese Cross – frequent in dry areas, leaves only, ID uncertain, fairly confident.

MONOCOTYLEDONS**ALISMATACEAE**

Alisma plantago-aquatica – Water Plantain – local in wet places. Perhaps other sp. also?

AMARYLLIDACEAE

Allium Flavum – Yellow Onion – infrequent in dry stony places.

Allium sphaerocephalon – Round Headed Garlic – quite frequent in dry places.

Allium vineale – Crow Garlic – local, grass, also waste ground at Bansko.

ARACEAE

Arum sp. (fruits only) – quite frequent in shade.

ASPARAGACEAE

Asparagus acutifolius – common in dry scrub etc.

Asparagus officinalis – Asparagus – local in grass and thickets.

Ruscus aculeatus – Butcher's-broom - local, shade, dry scrub.

COLCHICACEAE

Colchicum sp. – Meadow Saffron – one plant, moist grass nr. Perin – seed pods & leaves ID confident.

CYPERACEAE – very few of these examined or ID. Casual sighting only.

Carex echinata – Star Sedge – seen perhaps?, wet places.

Carex hirta – Hairy Sedge – local, damp grass.

Cyperus fuscus – Brown Gallingale – common in wet areas, ID fairly confident.

Eleocharis palustris – Common Spike Rush – local, wet places, ID fairly confident.

Eriophorum angustifolium – Cotton Grass – species not checked. Local in wet places.

JUNCACEAE – not examined closely – casual sightings:

Juncus bufonius – Toad Rush – local in bare wet places.

Juncus effusus – Soft Rush – local in marshy places.

Juncus inflexus – Hard Rush – as above.

Juncus trifidus – Three Leaved Rush – as above, ID fairly confident.

Luzula sp. - a Wood-rush – frequent in woods, species unknown.

LILIACEAE

Lilium martagon – Martagon Lily – local and infrequent at altitude.

MELANTHIACEAE

Paris quadrifolia – Herb-Paris – one colony, under Beech wood.

Veratrum (viride or lobelianum) – Green False-helleborine – common in pasture at altitude

ORCHIDACEAE

Dactylorhiza spp. – Spotted and Marsh Orchids – locally frequent at altitude, of indeterminate ID.

Dactylorhiza cordigera – Heart-flowered Marsh Orchid – ID S & S Place.

Dactylorhiza saccifera – Wedge-lipped Orchid – ID as above.

Cephalanthera rubra – Red Helleborine – fairly frequent in shade and woods at moderate altitude.

Epipactis excillis – in shade, roadside, ID uncertain.

Epipactis helleborine – Broad-leaved Helleborine – frequent in shade at moderate altitude.

Epipactis palustris – Marsh Helleborine – one colony, wet roadside site in shade.

Gymnadenia frivaldii – Frivald's Orchid – locally frequent in moist pasture at altitude, ID S & S Place.

Himantiglossum hircinum – Lizard Orchid – local, Rila, seed pods and moribund flowers, ID uncertain.

Neottia nidus-avis – Bird's-nest Orchid – very infrequent in shade, perhaps commoner than seems.

Neottia (Listera) ovata – Twayblade – one plant in grass. Pirin.

Platanthera chlorantha – Greater Butterfly Orchid – one plant, shade, ID confirmed S. Place.

POACEAE – a very large group many not examined or ID.

Aegilops geniculata – common in dry areas, moribund.

Agrostis sp. – Bent Grass – common at altitude, perhaps *A. stolonifera*.

Arrhenatherum elatius – False Oat Grass – common in moist areas.

Avena fatua - Wild Oat – around fields, waste ground etc.

Brachypodium pinnatum – Tor Grass – local, open grassland

Brachypodium sylvaticum – False brome – frequent in shady places and woods.

Bromopsis racemosa – Hairy Brome – quite frequent, shady places and woods. Confident ID.

Briza media – Quaking Grass – local at altitude.

Calamagrostis arundinacea – Purple Reed Grass – frequent generally.

Cyanosurus cristatus – Crested Dog's-tail – frequent in cool moist grassland

Dactylis glomerata – Cocksfoot – generally quite common.

Deschampsia caespitosa – Tufted Hair Grass – frequent at altitude in pastures.

Deschampsia flexuosa – Wavy Hair Grass – as above.

Echinochloa crus-galli – Cockspur Grass – frequent, disturbed ground etc.

Elytrigia sp. – Couch Grass – sp. unknown – somewhat glaucous.

Festuca rubra – Red Fescue – frequent in moist grass ID fairly confident.

Glyceria sp. – in water.

Helictotrichon sp. – Oat Grass – in pastures at altitude, ID uncertain.

Holcus lanata – Yorkshire Fog – quite frequent in high pasture.

Hordeum murinum – Wall barley – quite common, waste and disturbed ground, fields etc.

Lolium perenne - Rye Grass – quite frequent in moist pasture.

Nardus stricta – Mat Grass – common in high altitude grassland.

Pennisetum sp.? - a few plants on rocks, Pirin. ID uncertain. *Phalaris arundinacea* – Reed Canary Grass – quite frequent in moist places. Confident ID

Phleum sp. – Timothy – quite frequent at altitude, specific ID uncertain.

Phragmites australis – Common Reed – common by water.

Poa pratensis – Smooth meadow grass - local, moist grassland

Sesleria caerulea – Mountain Blue Grass – frequent at altitude, Pirin. fairly confident ID

Stipa (barbata?) – one site, Pirin. specific ID uncertain.

Sogo? “Giant Grass” – local. Sp. unknown.

Vulpia sp. (probably *V. myuros*)– Rat Tail grass – on rough ground.

SPARGANIACEAE

Sparganium sp. – Bur-reed – frequent in water, species not checked.

TYPHACEAE

Typha domingensis – Sturma lake, fairly confident ID

Typha latifolia – Great Reedmace – local in water.

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