# The Pontic Alps

## Summer on Lazistan's High Passes

#### **A Greentours Trip Report**

 $24^{th}$  July  $-6^{th}$  August 2012

Led by Christopher Gardner & Başak Gardner

#### Day 1 UK to Turkey

All those due to arrive did and we made our way to the hotel in Trabzon.

### Day 2 Trabzon to Camlik

There was a latish start to the tour to allow us to collect Roy and Iona and then buy the all - important picnic supplies, but by mid-morning we were off driving along the Black Sea coast for a while and then turning inland, stopping to buy fresh fruit and then driving on into the lush green hills. We stopped below some hills clad in tea bushes (big sacks of tea leaves were to be seen deposited along the road awaiting collection). In the adjacent herbage was the blue *Salvia forskhaeli* and in the river were a pair of Grey Wagtails. We pushed on to the hotel nestled in among spruce trees and prepared lunch.

The afternoon was spent a few miles up the road where we found many new flowers. Our first stop had tall *Cirsium pseudopersonata*, the impressive silvery *Eryngium giganteum*, flat white heads of *Tanacetum macrophyllum* and little pink *Sedum spurium* wedged in rock crevices. Higher up in a graveyard there were both branched *Campanula lactiflora* (many flowers) and spicate *latifolia* (few large hairy flowers), mauve *Geranium ibericum* and black-eyed magenta *Geranium psilostemon* and *Dianthus carmelitarum* as Common Rosefinches sang away and eventually showed themselves along with a Sedge Warbler. Elsewhere along the road was the woolly phyllaried yellow *Centaurea helenoides*, the huge hogweed *Heracleum platytaenium* and then orange *Papaver lateritium*, *Polygonum bistorta*, hummocks of *Hypericum hyssopifolium* ssp *microcalycinum* and spiny *Cirsium echinus* before it was time to return.

## Day 3 Ovit Dağı

The high slopes of Ovit Dağı was our target for the morning but we stopped first for the backlit flowers of *Papaver lateritium*. Reaching the pass we all walked out onto the short turf to explore

at our own pace. There were pretty clumps of purple *Gentiana pyrenaica*, deep pink *Geranium cinereum*, delicate white *Euphrasia lebardensis* as Shore Lark and Water Pipits sang. Close to the small rocky streams were *Cerastium cerastoides*, *Pinguicula balcanica* and a few *Primula auriculata* and a Clouded Apollo flew over as we looked at these. A bit higher up we were lucky to see a few *Gentiana nivalis* (a scarce species in Turkey) and then the first large bells of *Campanula tridentata*. A large boulder field had families of Alpine Accentors chasing about and there were a few Snowfinches too and Roy and Iona picked up a number of Green Sandpipers in the higher marshes. The snow had already retreated quite a way this year but I could see some higher patches among the rocks and we climbed up to these, huffing and puffing a bit with the altitude. It was all well worth it though for at the base of the rocks was a mixture of *Primula auriculata* (efarinose, dense inflorescence) and *longipes* (farinose with long pedicels) and then scrambling a bit higher into a rocky gully were some superb plants of *Primula elatior meyeri*. The clouds were gathering by now and rain was fast approaching and we made it back just in time. Lunch was again back at the hotel where it wasn't raining.

Afterwards we climbed up to fantastic area of super-flowery meadows with blue Aquilegia olympica and Scabiosa caucasica, the big white daisy Anthemis melanoloma, abundant pink Polygonum bistorta and a few pure white Anemone narcissiflora still in bloom. A Golden Eagle soared out as we climbed up the meadow and then once again back on the road there was a Mountain Chiffchaff and Common Rosefinches. Along the roadside were stands of darkest purple flowered Pedicularis atropurpurea and yellowish condensata, a solitary yellow globe orchid Traunsteinera sphaerica was found along with some fine Dactylorhiza urvilleana and endless drifts of other lovely flowers such as Aster caucasica, delicate pink Pimpinella rhodantha and orangey Inula orientalis. We drove down for a bit and then stopped for Gentianella caucasica and good spikes of Digitalis ferruginea as dozens of Scotch Arguses gathered along the roadside to prepare for roosting.

#### Day 4 Anzer

Lush forest covers the lower parts below the big grassy pastures or yaylas and as we drove up towards Anzer we stopped beside one verdant section where there were big stands of *Campanula lactiflora*, even taller *Prenanthes cacaliifolia* and *Cicerbita bourgei*, as well as creamy *Salvia glutinosa*, *Cirsium hypoleuca*, and the white flowered *Knautia involucrata* with Greenish Warbler calling in the background. Further on were some very nice deep pink *Silene armeria* and then up onto the yayla with tall meadows brimming with *Delphinium formosum*, red-pink *Lathyrus rotundifolius*, *Astrantia maxima*, *Centaurea helenoides*, masses of pink *Coronilla varia* and then as we drove on a solitary *Crocus scharojanii* flowering in a freshly cut pasture. Curious locals looked on at the crazy foreigners photographing the little golden flower. There was a handsome male Rosefinch too before we continued up to pass driving past amazing displays of flowers. But there was method in the madness because once we'd gained the pass at just under

three thousand metres we set out to explore the short turf and slopes finding the lovely *Corydalis conorhiza*, clumps of the white daisy *Tripleurospermum melanolepis* and the stemless pink thistle *Jurinea moschus* as Kestrels flew about. On as steeper bit of scree by the road there were a few clumps of *Asperula gracilis* in the rocks around about were some fine clumps of *Campanula aucheri*.

Driving back down we stopped a couple of times, first for a big colony of greyish-blue *Corydalis alpestris* growing in heavy scree close to creamy-yellow *Coronilla orientalis*. Snow Finches were about and a juvenile Golden Eagle cruised across the slope. There were flowers everywhere with drifts of blue *Centaurea nigrifimbriata*, then *Geum coccineum*, great waving stands of *Polygonum bistorta* ssp *carnea*, sheets of *Stachys macrantha* and clumps of tall yellow *Doronicum balansae*. A quick cup of tea was followed by a stop for a good population of *Campanula collina* with a few *Asyneuma amplexicaule* thrown in and then near the village the unusual greyish *Delphinium dasystachyum* and yellow *Linaria genistifolia*. Watching the stream two Dippers were seen very well as they preened or just stood on the rocks and both Grey Wagtail and Common Sandpiper went past. We continued down for a fair way passing great stands of *Campanula lactiflora* stopping finally for yellow *Alcea hohenackeri* to round off the day's botany.

#### Day 5 Mor

All of the high yaylas vary in character and Mor is another very worthwhile destination, consisting of much drier habitat than we'd experienced yesterday. On the steppe as we climbed up were Campanula glomerata, the outrageous scarlet Sedum sempervivoides alongside Helichrysum plicatum and pale pink Centaurea pulcherrima as Apollo, various blues, Balkan Marbled Whites and then three Long-legged Buzzard flew. The landscape was wonderful with big views and as we descended towards Mor Yayla village we stopped for a magnificent stand of tall yellow Centaurea macrocephala, which contrasted nicely with the deep blue of the Anchusa leptophylla by the roadside. The rest of the climb to the pass was fairly rough but we saw Ortolan Bunting, Whinchat, Shore Lark and Choughs and Samet our driver was only denied reaching the top by a poorly parked bulldozer. Nonetheless it wasn't far for us to all walk up to a spectacular view of the 'Seven lakes'. Among the rocks and stony ground were pretty blue and mauve Nonea versicolor, lilac Aster alpinus and the unusual and scarce pink Dracocephalum aucheri. A sharp shower of rain has us running for the bus, but poor Ruth has gone too far without her brolly and returned a touch soggy. We waited for the rain to pass as great rolls of thunder rattled about.

It did stop and lunch was prepared, eaten and then we explored the slopes finding many more superb flowers with the rare scree-loving *Viola odontocalycina* to begin with followed by the wonderful creamy flowered *Centaurea appendicigera*. Elsewhere were fine clumps of lilac *Lallemantia canescens*, orangey *Papaver fugax*, the delicate pale blue harebell *Campanula stevenii*,

fine clumps of bicoloured *Vicia canescens* and best of all a scree patch with many of the lovely pea *Vavilovia formosa*. On the drive back we stopped only for a fine stand of *Verbascum armenum*.

#### Day 6 To Barhal

The very early birders went out with a local guide to a nearby high meadow to look for Caucasian Black Grouse surprising the many Ring Ouzels and Tree Pipits along the track as we drove. It was actually very pleasant being up above the valleys in these flowery meadows so early and seeing the dawn break. It took some time to track down the birds seeing first a Chamois before flushing two males who wheeled across the slopes and away. Interestingly as we descended the gatherings of Scotch Arguses along the banks we'd seen a few days before now made sense as these banks got the first rays of sunlight and now there were the same dozens and dozens of butterflies out warming themselves in the morning sun.

There was actually a long drive today to our next hotel and we drove up and over Ovit Dag again and then descended into the warmer Coruh Valley beyond stopping for a plant of *Pelargonium endlicherianum* with showy deep pink flowers. Around and about this were masses of the pale pink *Xeranthemum annuum* and a few spiny green *Eryngium campestre*. Next were fine clumps of delicate *Dianthus orientalis* sprouting from the rocks as well as orange *Glaucium corniculatum*, Southern White Admirals, Golden Oriole and Roller. It was hot in these lower valleys and although the scenery was in places dramatic I wanted to take lunch in a much cooler shady location beside an old Georgian church surrounded by big walnut trees. There was only just time to see the church and eat lunch before a big storm swept in.

Once it has passed we carried on towards Yusefeli where there were good clumps of *Origanum rotundifolium* and both Southern Comma and Scarce Swallowtail in the valley leading to our hotel.

## Day 7 Olgunlar

Fine start to the day and we stopped first for pink *Alcea dissecta*, stands of cichory and then the scarce *Thaleropis ionia*, which was joined by Scarce Swallowtail, Dark Green Fritillary and Southern White Admiral. Butterflies were becoming increasingly abundant as our next stop for another fine plant of *Pelargonium endlicherianum* was beside stands of *Lythrum salicaria* and the thistles proved a magnet for White-letter Hairstreak, False Heath Fritillary and Silver-washed Fritillary. False Grayling were settling on the road and there were stands of yellow *Lysimachia vulgaris* too. As we drove up a pair of Red-fronted Serins flew out but sadly never settled in a convenient place although there was the bonus of Blue Rock Thrushes, *Isatis glauca* and delicious raspberries. A Camberwell Beauty settled on the road and there was a pair of Red-backed Shrikes hunting in a field before we reached Olgunlar and butterfly madness. Here

were clouds of blues with Idas, Turkish Furry, Common and Meleager's (at least) as well as Heath Fritillary and Yellow-banded Skipper, but that was just a sample, photos would have to gone through to determine how many species. Beside all of this was a simply incredible clump of *Gentiana septemfida* and a few *Parnassia palustris*.

We had a tasty lunch at a pension in the village and then paid a quick visit to a good clump *Swertia iberica* before the now customary afternoon rain arrived. The rain passed and we drove down to the nearby village of Yaylalar where we had a short walk to find *Melampyrum arvense*, *Polygala anatolica*, *Centaurea pulcherimma* and the rare pink knapweed *Uechtrizia armena*. Mistle Thrush rattled from the trees as we returned with the threat of more rain in the air. Unfortunately the rain did return and it rather dampened the butterflies and curtailed the day with just a stop for a big population of *Alcea dissecta* and Dippers.

#### Day 8 Karagöl

Today had to be hastily rearranged as our attempt to drive up to Pisenkaya was thwarted by roadworks. Instead we took the road to Karagol and stopped first for Silver-washed Fritillaries on a stand of Cephalaria gigantea beside a still working little water-powered flour mill. Not much further up was one of the flowers of the trip with some north facing rocks harbouring fine clumps of Campanula choruhensis as well as Sempervivum minus and various sedums. Three of the group came with me and climbed up a lot higher following the switchback road at first with incredible oceans of Alchemilla mollis from among which sprouted many Gentiana septemfida and then big stands of Delphinium formosum and Red-backed Shrikes. There had clearly been a good number of lilies a couple of weeks ago, but these were in seed now. A couple of flowering plants of Gentiana aesclepiadea were seen before the route headed steeply uphill for a bit and out attempts at a short cut sort of worked cutting through a patch of spruce forest with *Pyrola rotundifolia* and eventually after a rocky bit reaching an area of turf between the many streams. There were stands of Aquilegia olympica and on the higher screes many orange Papaver lateritium. Rumbles up ahead and a greying sky signalled it was time to retreat and we did so descending a different quicker way as the clouds gathered, arriving back at the bus in the nick of time and just as the rest of the group reconvened too. The view back up the valley was dramatic and within minutes the mountains had disappeared. Başak had stayed with the rest of the group but unfortunately the road works had prevented them going very far although they did find many butterflies and the pretty pink Epilobium dodonaei.

A Persian Squirrel scurried across the road as we returned and there was still time to visit the local church, a virtual replica of the rundown one we'd seen a few days ago but this was in better nick although now converted into a mosque.

#### Day 9 To Laset

There had been heavy rain overnight but this didn't stop the local Wren from singing continuously! We drove towards Yusefeli stopping for a while along a side road with big stands of *Lythrum salicaria* and *Eupatorium cannabinum* which are usually thronging with butterflies, but not today on such a cool morning. There was *Scutellaria albida*, *Cynanchum acutum* and *Clematis vitalba*, before finally a butterfly appeared, a Long-tailed Blue. A couple of Jersey Tigers were also seen and a male Golden Oriole sang and showed himself. The winding road passed some fine groups of steely-blue *Echinops orientalis* and we stopped by one also seeing a Turkish Fiery Copper. We skirted the towering dam and made it up to a small Georgian church where we had lunch.

The remaining drive onto the charming green countryside around Laşet was past fields with much *Inula helenium* with Green Woodpeckers calling and a wonderful late summer feel to the landscape.

#### Day 10 Cam Pass

The abundant meadows that surround Laşet and cloth much of the north-east are alive with invertebrates and this morning when we stopped not far from the hotel the grassland was full of bush-crickets, burnet moths and Marbled Whites all feeding or sheltering among *Gentiana cruciata*, *Centaurea salicifolia*, slender *Linum tenuifolium* and the massed ranks of tall *Inula helenium* upon which Great Green Bush-Crickets sought a vantage point. We climbed up onto the higher slopes to just beyond the spruce forest and stopped at a viewpoint looking out across the forests and mixed farms below. There were many soft-blue *Scabiosa caucasica* and just below us a superb meadow with abundant *Astrantia maxima*, *Geranium psilostemon* and the peculiar feathery-bracted *Cirsium obvallata*. Greenish Warbler called form the trees and other slopes were swathed in flowers with masses of *Campanula lactiflora* and *Inula speciosa* as Steppe Buzzards flew overhead.

Up onto pass and we quickly picked up Lesser Spotted Eagle, Long-legged Buzzards and then a Short-toed Eagle in a short space of time. On a rocky outcrop were some excellent *Campanula crispa* (the best I'd seen) and in the drier grassland was delicate little *Allium olympicum*, tall *Delphinium flexuosum* and creamy *Gentian gelida* growing next to *Gentiana septemfida* with what could only be their hybrid offspring in between, a rather insipid pale blue gentian. After lunch we looked around the tall herbs flanking a near dry stream with big stands of grey-leaved white *Tanacetum balsamita*, *Swertia iberica* and a pair of monkshoods with blue *Aconitum nasutum* and yellow *anthora*. A pale phase Booted Eagle soared over us before we left. There was time to stop for a few *Aconitum orientale* flowering below a steep roadside bank and then we carried on down to an area of spruce forest.

Here hidden in the darkest hollows was a good colony of the mysterious Ghost Orchid *Epipogium aphylla* growing in the deep litter with a few *Monotropa hypopitys*. Thunder was again groaning overhead and we had time to get our pictures and made for the bus before the rain arrived.

#### Day 11 Çildir & Aktaş

A fine start to the day, but I couldn't help thinking I'd forgotten something and I had - the other car! With this slight delay while Başak dashed back we saw Great Spotted Woodpecker, Lathyrus tuberosus, Dingy Skipper and Dark Green Fritillary so it wasn't so bad after all. Once again heading up to the pass we saw an adult Lammergeier. On the other side of the pass the landscape quickly changes from lush forests akin to the alps to rolling grassland akin to Central Asia. Before the town of Ardahan we stopped beside the road for stands of yellow Centaurea glastifolia, the big thistle Onopordum acanthium as well as both White Stork and Black Storks. A Lesser Spotted Eagle was sat near road not much further on, indifferent to our interest. Beyond the rather grotty town is a small wetland and here we saw Cirsium ciliatum ssp szovitsii, Marsh Harrier, Coot, Little Grebe and dapper Lesser Grey Shrikes. Cuckoos were seen as we progressed across the rolling countryside which opened out into plunging gorges every so often and then the blue waters of Çildir Lake. There were hundreds of Sand Martins settled on the road when we arrived, speeding off in whirling flocks as we approached. It was windy but the marshes were still very good with an excellent scope view of Temminck's Stint, along with Green and Wood Sandpipers, Ruff, a Marsh Harrier with prey (possibly a duck). Somehow a Small Tortoiseshell was braving the wind.

After lunch we drove onto Aktaş Lake which is of quite different character. The first view of it was from a hilltop with a commanding outlook towards Georgia and a deep gorge to the left. The lake is actually bisected by the Turkish Georgian border and there are large breeding colonies of pelicans and cormorants in the middle. By the lakeshore we had close views of Dalmatian Pelicans (and distant White Pelicans) in the water and the guano encrusted islands in the lake and there were Ruddy Shelduck and Little Egret. A second area produced at least three Montagu's Harrier, Snipe and the charming apricot coloured *Rhynchocorys elephas*. This was offset rather well by dark blue *Eryngium billardierii*. Leaving the lake we climb back up to the hilltop and stopped for a photo with drifts of *Scabiosa caucasica* in front and then paused again for a picture of the dramatically positioned Wolf Castle. The final piece of action though was just after Ardahan where a juvenile Imperial Eagle was perched on a pylon in clear view.

#### Day 12 Yalnızcam & Karagöl

Birdlife around the bungalows included a couple of Greenish Warblers, Rock Buntings and Coal Tits. We tried a different road that branched off of the pass today, not sure of its final destination. There was not so much to see but nonetheless we did find a couple of *Gentiana verna* in flower, reddish *Nonea pulla* ssp *monticola*, Lammergeier and an excellent close flyby of a Booted Eagle. Just beyond the pass was a fenced off area with recently planted trees and this semi-protected area thronged with hundreds of *Scabiosa caucasica* with some big clumps popular with Caucasian Spotted Fritillary. Elsewhere there were many yellow *Aconitum anthora*, bright yellow *Hypericum linarioides*, various species of burnet moths, some handsome crickets and a dead mole.

We descended back towards the bungalows we were staying in and then beyond via small unmade tracks to the peaceful Karagöl Lake with dragonflies, damselflies, Marsh Frogs and on a slope behind superb *Gentiana aesclepiadea* and *Astrantia maxima*. Walking around there was plentiful *Melampyrum arvense* a patch of *Saxifraga cymbalaria* and *Salvia glutinosa*. As seemed to be the way this year the rain arrived just after lunch. It stayed with us a while although we still managed to see Rock Buntings and photograph *Origanum rotundifolium* on the way back.

#### Day 13 To Kars & Ani

We climbed over the pass for the last time and turned east seeing Roller very well in the telescope just beyond Ardahan. An insignificant rocky meadow some way after was actually very good with hundreds of *Gentiana gelida*, golden *Inula salicaria*, Crested Larks and a distant Golden Eagle. Further on were Black Kites. We continued on to Kars for lunch and then the afternoon was spent at the splendid ruins at Ani on the border with Armenia. Here among the red stone churches and ruined caravanserais were many clumps of *Peganum harmala* and *Lepidium vescicarium* with distinctive inflated stem nodes. Birding was good with Pied, Isabelline and Finsch's Wheatears, Rock Nuthatch and Rock Sparrow.

## Day 14 Koyucuk Lake & journey home

There was time for a quick birding session before we left and it was a productive one that began with a fantastic little flock of Rose-coloured Starlings that were sunning themselves on roadside spoil heaps. At Koyucuk Lake there were thousands of birds with countless Coots, many Black-winged Stilts, as well as Green, Common, Wood and Marsh Sandpipers and Ruff. Both White-winged Black and Whiskered Terns were very active and three Dalmatian Pelicans soared over the lake and then landed. An Egyptian Vulture as we drove back completed the morning. There was time for a brief rest after lunch before our afternoon flight to Istanbul and onto the UK or for some of us a longer stay in Turkey.

## **Itinerary Summary**

- Day 1 Trabzon to Genesis/Güneyce, Çamlık & Sivrikaya
- Day 2 Ovit Dağ
- Day 3 Anzer Yayla
- Day 4 Mor Yaylası
- Day 5 Ovit Dağı & Dört Klise/Barhal
- Day 6 Pişenkaya
- Day 7 Taşkıran & Yaylalar
- Day 8 Olgunlar & Dibe Yaylalar & Yaylalar
- Day 9 Demirgören Valley & Yaylalar
- Day 10 Yusufeli / Laşet
- Day 11 Cam Pass & Sahara National Park
- Day 12 Çıldır Gölü & Aktaş Gölü
- Day 13 To Kars via Ardahan

## **Systematic List Number 1 Flowers**

Equisetaceae

Equisetum arvense Scattered, Cam Pass, Pişenkaya?

Equisetum fluviatile Marshy areas on Cam Pass,Çıldır Gölü?

Equisetum palustre Marshy areas on Cam Pass

Equisetum telmateia Sivrikaya

Lycopsidaceae

Lycopodium clavatum Ortan where common on mossy banks

Pteridophyta

Adiantum capillus-veneris Çoruh Valley,Çamlık Asplenium scolopendrium Sivrikaya, Barhal

Asplenium septintrionale Demirgören Valley, Karagol

Asplenium adiantum-nigrum Demirgören Valley

Asplenium trichomanes Sivrikaya Athyrium distentifolium Sivrikaya

Athyrium filix-foemina Cam pass woods Cystopteris fragilis Ovit Dağı, Karagol

Dryopteris abbreviata Widespread e.g Çamlık, Sivrikaya

Dryopteris limbosperma Anzer Yayla, Mor Yayla

Gymnocarpium robertianum Taşkıran

Matteucia struthiopteris Locally common e.g. Ovit Dağı, Olgunlar

Phegopteris connectilisPişenkayaPolypodium vulgare aggSivrikaya, etcPolystichum aculeatumSivrikaya,Ovit Dağı

Polystichum lonchitis Ovit Dağı, Mor Yayla

Pteridium aquilinum Widespread e.g Sivrikaya, Ovit Dağı

Pteris cretica Sivrikaya Telypteris phegopteris Karagol

Cupressaceae

Juniperus communis Widespread e.g Anzer Yayla, Ovit Dağ

Juniperus oxycedrus Olgunlar, Ovit Dağı, etc

Juniperus sabina Yaylalar

Pinaceae

Abies nordmanniana Locally dominant e.g. Cam pass, Yaylalar

Picea orientalis Very common and widespread, the dominant coniferous species e.g Çam

pass, Yaylalar

Pinus sylvesris Locally common e.g. Pişenkaya, Yaylalar, Çam pass

#### Aceraceae

Acer campestre Taşkıran

Acer platanoides Çamlık, Ovit Dağ, Demirgören Valley

Acer pseudoplatonoides Pişenkaya

#### Anacardiaceae

Rhus coriaria Widespread, long, wide pinnate leaved shrub/tree

Cotinus coggygria Smoke bush, Barhal area

Many more species of this difficult family were seen but not identifies

#### Apiaceae

Astrantia maxima Scattered, lovely pink form, widespread e.g. Anzer Yayla, Pişenkaya etc.

Olgunlar-Dibe Yayla

Bupleurum falcatum

Bunium microcarpum ssp. bourgai Ovit Dagi
Carum meifolium Ovit Dağı
Chaerophyllum astrantiae Olgunlar
Chaerophyllum macrospermum Olgunlar
Conium maculatum Çıldır Gölü

Daucus carota Scattered ,Ovit Dağı

Eryngium billardieri Aktas Lake

Eryngium campestre En route to Yaylalar , Anzer Yayla.

Eryngium giganteum Superb big silvery species mainly around Ovit Dag, but scattered

elsewhere too

Falcaria vulgaris Demirgören Valley,Çıldır Gölü?

Heracleum platytaenium Widespread e.g Ovit Dagı, Anzer Yayla

Pimpinella saxifrage Çıldır Gölü?

Pimpinella rhodantha Sivrikaya, Ovit Dağı

Prangos ferulago Dibe Yayla?
Sanicula europaea Çam Pass
Xanthogalum purpurascens Mor Yayla

## Asclepiadaceae

Cynanchum acutum Cam Pass
Cynanchum fuscatum Anzer Yayla

Asteraceae A superb array of this family was on show, however, thistles are not the

easiest to identify and a number eluded me!

Achillea latiloba Sivrikaya

Achillea millefolium Mor Yayla,Ovit Dağ Actium platylepis Sivrikaya,Anzer Yayla

Actium minus Laset

Antennaria dioica Ovit Dağ?

Anthemis marscheilliana ssp pectinata Locally very common on higher meadows and alpine turf, golden-

yellow daisy, fine-cut soft grey leaves e.g Ovit Dağ, Mor Yayla, Pişenkaya

Anthemis melanoloma ssp melanoloma Creamy flowers with drooping ligules, unbranched seen at Sivrikaya

pastures

Anthemis tinctoria Mor Yayla

Arctium minus Burdock, scattered e.g Ovit Dağ

Artemesia absinthium Cam Pass Artemisia vulgaris Mor Yayla

Aster alpinus A few at Mor Yayla

Aster amellus Taller than alpinus with branched inflorescence, Mor Yayla, Ovit Dağ, etc

Aster caucasicus

Carduus hamulosus Çıldır Gölü?
Carduus lanuginosus Mor Yayla

Carduus nutans En route to Çıldır Gölü ?
Carlina biebersteinii Mor Yayla,Dibe Yayla , Laset

Carlina vulgaris Mor Yayla

Centaurea appendicigera Gorgeous creamy flowered cornflower, widespread on gravely slopes or

rocks in mountains e.g Ovit Dağ, Anzer Yayla, Mor Yayla etc.

Centaures dealbata Laset

Centaurea glastifolia Bright yellow with slender winged stems. Widespread, Mor Yayla,

Ardahan (common)

Centaurea helenioides Large yellow flowers with woolly phyllaries, en route to Anzer

Yayla,Sivrikaya

Centaurea hypoleuca Anzer Yayla

Centaurea macrocephalaAnother large yellow species with brownish phyllaries. Mor YaylaCentaurea nigrifimbriataBlue alpine cornflower, black-edged phyllaries, Widespread e.g

Sivrikaya, Ovit Dağ, Pişenkaya etc.

Centaurea pseudoscabiosa Taşkıran?

Centaurea pulcherrima Widespread in alpine meadows, pink with papery pale brown

phyllaries, Pişenkaya, Taskiran, etc

Centaurea rhizantha Anzer Yayla

Centaurea salicifolia Laset

Centaurea triumfettii Mor Yayla

Cicerbita bourgaei

Cicerbita racemosa Shorter species lilac-blue, scattered e.g. Anzer Yayla, Mor Yayla,

Sivrikaya

Cichorium intybus Abundant along roadside, chicory, Mor Yayla

Cirsium adjaricum Yaylalar

Cirsium echinus Widespread e.g. Mor Yayla, Anzer, spiny thistle with creamy nodding

flowers on roadsides

Cirsium hypoleucum Common deep pink thistle of woodland edge, nodding flowers e.g

Anzer Yayla

Cirsium obvallatum Cam Pass

Cirsium pseudopersonata Sivrikaya, Ovit Dağ

Circium pubigerum ssp glomeratum Barhal area, pale pink flowered, tall

Cirsium rhizocephalum

Conyza canadensis En route to Laşet, Sivrikaya?

Doronicum balansae Anzer and Mor Yayla

Echinops orientale Fine stands near Barhal, round thistle heads with blue flowers, Mor

Yayla, Ovit Dağ

Erigeron acer Widespread, pale pink species e.g Çam pass

Erigeron annuus Sivrikaya?

Erigeron caucasicus Tall deep pink species, Ovit Dağ

Eupatorium cannabinum Hemp Agrimony, tall with broad white corymbs, Barhal area, Ovit Dağ,

Pişenkaya etc.

Gnaphalium supinum Widespread e.g Ovit Dağ

Helichrysum armenium Similar to plicatum but leaves are revolute

Helichrysum plicatum Common pale yellow with deeper centre e.g Ovit Dağ

Inula helenium Widespread e.g Taşkıran, Sivrikaya, typical tall Inula, Barhal, Laset

Çam Pass

Inula oculus-christi

Inula maeri Barhal

Inula orientalis Lovely orangey-yellow species in tidy clumps, Sivrikaya, Ovit Dağ etc.

Jurinella moschus Anzer and Mor Yayla

Mycelis muralisÇıldır GölüOnopordum acanthiumCam Pass

Petasites albus Widespread e.g Ovit Dağ, some huge leaves on show

Pilosella hoppeana Widespread e.g Anzer Yayla, Mor Yayla, pale yellow daisy with ovate

hairy leaves

Prenanthes cacalifolia

Prenanthes purpurea Barhal area?

Reichardia glauca Scattered throuhgout

Scariola viminea Yaylalar Scorzonera cana Ovit Dağ Scorzonera tomentosa Yaylalar

Senecio pseudo-orientalis Anzer Yayla, Mor Yayla

Senecio platyphyllus Anzer Yayla

Senecio racemosus

Senecio taraxacifolius Ovit Dagi

Senecio vernalis Anzer and Mor Yayla

Solidago virgaurea Anzer Yayla, above Sivrikaya

Tanacetum balsamita Fine white flowered species on Cam Pass

Tanacetum macrophyllumOvit DağTanacetum parthaneumSivrikaya

Telekia speciosa Another tall handsome daisy, broad yellow flowers and large, broad

leaves, widespread e.g Ovit Dağ, Anzer Yayla etc.

Tripleurospermum melanolepis Anzer and Mor Yayla

Tripleurospermum oreades var. Mor Yayla

tchihatchewii

Tussilago farfara Sivrikaya, Ovit Dağ not in flower

Uechtritzia armena Yaylalar

Xeranthemum annuum Abundant in drier valleys, tall pink daisy with pointed

petals, widespread e.g Mor Yayla, Pişenkaya

Balsaminaceae

Impatiens noli-tangere Widespread in wet areas, a balsam e.g Anzer Yayla

Berberidaceae

Berberis crataegina Anzer Yayla, Barhal area

Betulaceae

Alnus glutinosa glutinosa Widespread e.g Ovit Dağ, Anzer Yayla, Mor Yayla etc.

Boraginaceae

Anchusa azurea Tall blue 'borage', Sivrikaya, etc

Anchusa leptophylla More slender with deeper blue flowers, Mor Yayla

Arnebia pulchra Anzer Yayla, Çam Pass

Cerinthe glabra

Cerinthe minor Pişenkaya, Laset

Cynoglossum montanum Reddish flowers, spiny disc-like fruits, widespread e.g Demirgöre Valley

En route to Yusufeli from Yaylalar?

Echium italicum En route to Çıldır Gölü

Echium russicum

Echium vulgare Widespread e.g Sivrikaya, Anzer Yayla etc.

Lappula barbata Demirgören Valley

Nonea pulla ssp. monticola Cam Pass Nonea versicolor Mor yayla

Myosotis alpestris Widespread in mountains e.g Ovit Dağ, Yaylalar

Nonea pulmonaroides Çam Pass Onosma aucherianum Mor Yayla

Onosma isauricum

Onosma tauricum Yaylalar

Symphytum asperum Widespread, blue flowers Ovit Dağ, Pişenkaya etc.

Brassicaceae

Arabis draboides

Arabis caucasica Mor yayla
Berteroa mutabilis Yaylalar area
Bunias orientalis Sivrikaya?
Capsella bursa-pastoris scattered

Cardamine raphanifolia ssp.acris Wet areas, scattered; Ovit Dağ, Anzer Yayla

Cochlearia sintenisii

Coluteocarpus vesicaria Anzer area. Yaylalar

Dentaria bulbifera

Draba brunnifolia Ovit Dağ, Anzer Yayla Draba hispida Ovit Dağ, Anzer Yayla

Erysimum alpinum Mor Yayla

Fibigia macrocarpa Yaylalar (Fruits )

Hesperis matronalis Cam Pass

Isatis glauca Scattered. Woad.Mor Yayla.
Thlaspi arvense Sivrikaya, Anzer Yayla

Buxaceae

Buxus sempervirens

Camelliaceae

Thea sinensis Widespread in plantations – Tea e.g Güneyce

Campanulaceae

Asyneuma amplexicaule Slender purplish-blue spikes in meadows, clasping leaves, Anzer

Yayla, Mor Yayla

Campanula alliarifolia Tall white species. Widespread, e.g. Ovit Dag, Çam Pass etc.

Campanula aucheri Large blue bell in alpine turf, pale centres, corolla pubescent outside e.g.

Mor Yayla, Ovit Dağ

Campanula betulifolia En route to Anzer Yayla?

Campanula choruhensis A few plants in flower on rocks at Taskiran

Campanula collina Locally common on higher passes e.g. Anzer Yayla. Spikes of well

spaced purplish bells

Campanula crispa White flowered cliff dweller on Cam Pass

Campanula glomerata Widespread, dense pale blue – dark blue flowers, stiff bracts and

leaves.Mor Yayla,Pişenkaya.

Campanula lactiflora Locally abundant e.g. Ovit Dag, Anzer, tall with huge heads of pale lilac

to mid-blue flowers

Campanula latifolia Scattered, tall with large hairy bells. Anzer Yayla, Mor Yayla etc.

Campanula persicifolia Ayder

Campanula rapunculoides Locally abundant along roads, tall, slender with lilac top purple bells in

spikes. En route to Çamlık and Pişenkaya.

Campanula sibirica Rather wiry, species with sparse spikes, flowers generally held

upright.Ovit Dağ,Sivrikaya.

Campanula stevenii Delicate pale blue species on long wiry stems e,g, Ovit Dağ,Mor Yayla
Campanula tridentata Similar to aucheri but more purple and preferring rocks to turf, dark

centres. Widespread in mountains e.g Ovit Dağ, Mor Yayla

Jasione supina Dwarf with round blue 'globularia-like' flowers, Ovit Dağ, etc

Cannabaceae

Cannabis sativa Yaylalar Humulus lupulus Yaylalar Capparaceae

Capparis ovata En route to Yusufeli

Cleome steveniana

Caprifoliaceae

Lonicera caucasica

Lonicera xylosteum Anzer area

Sambucus edulis Widespread and common e.g Anzer Yayla, Mor Yayla etc.

Sambucus nigra

Viburnum lantana Scattered e.g. Demirgören Valley, Yaylalar

Viburnum opulus Scattered e.g. En route to Çamlık

Caryophyllaceae

Cerastium armeniacum

Olgunlar

Cerastium cerastioides Yusufeli Cerastium dahuricum Anzer Yayla

Cerastium gnaphaloides

Cerastium purpurascens Çam Pass Dianthus calocephalus Mor Yayla

Dianthus carmelitarum Sivrikaya,Ovit Dağ Dianthus erythrocoleus Mor Yayla,Yaylalar

Dianthus micranthus White flowered species on Cam Pass
Dianthus multicaulis Pale pink species at Mor Yayla

Dianthus orientalis Widespread e.g en route to Laşet from Yusufeli, fimbriate petals, long

wiry stems, on cliffs

Gypsophila elegans Sivrikaya Gypsophila glandulosa Ovit Dağ

Gypsophila silenoides

Herniaria glabra Anzer Yayla, Mor Yayla

Minuartia circassica Scattered, similar to juniperina, but distinct greyish leaves and broader

petals.Ovit Dağ, Anzer Yayla, Pişenkaya etc.

Minuartia imbricata Ovit dagi

Minuartia juniperina Fine-leaved tallish species on alpine tundra at Anzer Yayla, Mor Yayla

etc.

Minuartia recurva Anzer Yayla

Sagina procumbens

Silene alba ssp. divaricata Mor Yayla

Silene armeria En route to Karagol

Silene compacta Widespread e.g En route to Çamlık,Ovit Dağ etc.

Silene cappadocica Çam Pass

Silene caryophylloides En route to Ovit Dağ

Silene lazica Anzer Yayla

Silene lucida Mor Yayla, deep red calyx, linear leaves less than 1.5 mm

En route to Sivrikaya

Silene multifida Mor Yayla Silene otites Mor Yayla

Silene pungens

 $Silene\ saxatilis$ 

Silene vulgaris Mor Yayla

Stellaria graminea

Stellaria kotschyana Ovit Dağ

Stellaria media Scattered e.g. Ovit Dağ

Celastraceae

Euonymus latifolius

Ceratophyllaceae

Myriophyllum spicatum

Chenopodiaceae

Chenopodium album

Chenopodium foliosum Mor Yayla, Çıldır Gölü

Cistaceae

Helianthemum nummularium Widespread rockrose e.g. Anzer area

Convolvulaceae

Convolvulus arvensis Widespread e.g. Mor Yayla

Calystegia sepium Anzer Yayla

Calystegia silvatica

Cornaceae

Cornus sanguinea Widespread e.g. Taşkıran

Corylaceae

Carpinus orientalis Common on northern slopes e.g. Pişenkaya

Ostrya carpinifolia Widespread e.g. Pişenkaya, Taşkıran

Corylus avellana

Corylus maxima Ovit Dağ

Crassulaceae

Sedum album

Dibe Yayla

Sedum hispanicum Mor Yayla

Sedum maximum Pişenkaya, Olgunlar Sedum pilosum En route to Sivrikaya

Sedum sempervivoides Stunning scarlet species at Mor Yayla

Sedum spurium Widespread and very common pink species e.g. Ovit Dağ, Anzer yayla

etc. White forms on Cam Pass

Sedum stoloniferum More delicate than spurium, scattered e.g. Anzer area

Ovit Dağ

Sedum tenellum

Sempervivum armenum

Sempervivum minus Ovit Dağ

Dipsacaceae

Cephalaria gigantea Abundant at Sivrikaya and Laset area

Knautia involucrata En route to Anzer

Scabiosa caucasica Locally abundant on higher turf, large mid-blue flowers e.g.

Sivrikaya, Ovit Dağ, Çam Pass etc.

Scabiosa columbaria ssp.columbaria Yaylalar

Scabiosa rotata Sivrikaya

Elaeagnaceae

Hippophae rhamnoides

Ericaceae

Rhododendron caucasicum Higher slopes where often the dominant shrub. Ovit dağ, Anzer Yayla

etc.( Leaves )

Rhododendron luteum Widespread e.g. Anzer Yayla (Leaves)
Rhododendron ponticum Widespread e.g. Ovit Dağ (Leaves)

Vaccinium arctostaphylos

Vaccinium myrtillus Widespread, delicious berries e.g. Ovit Dağ Vaccinium uliginosum Widespread e.g. Anzer Yayla, Pişenkaya

Euphorbiaceae Sorry but this family was totally ignored! Several species of Euphorbia

were evident but all were well past their flowering peak.

Euphorbia macroceras Sivrikaya

Fabaceae

Albizia julibrissin

Argyrolobium bieberstenii Yaylalar

Coronilla orientalis Scattered, planted in towns

Ovit Dağ, Anzer Yayla

Coronilla varia Anzer Yayla, Sivrikaya

Hedysarum hedysaroidesOvit Dağ, slender pink sainfoinLathyrus pratensisWidespread e.g. Anzer area

Lathyrus rotundifolius Widespread e.g. Anzer Yayla, Mor Yayla

Lathyrus tuberosus Near Ardahan, Laset

Lotus corniculatus Widespread e.g. Ovit Dağ, Mor Yayla

Medicago alba

Melilotus officinalis Widespread e.g. Ovit Dağ

Onobrychis transcaucasica Ovit Dağ
Onobrychis montanım Anzer yayla

Robinia pseudacacia Widespread, planted e.g. Taşkıran

Trifolium alpestre Çam Pass

Trifolium arvense Widespread e.g. Ovit Dağ, oblong woolly heads, like a hare's foot

Trifolium campestre

Trifolium fragiferum En route to Çıldır Gölü?

Trifolium medium Yaylalar

Trifolium pannonicum Widespread and common large creamy-white clover e.g. Anzer

Yayla, Mor Yayla

Trifolium pratense

Trifolium repens Widespread e.g. Ovit Dağ
Trifolium rytidosemium White forms at Ovit Mount.
Trifolium spadiceum Sivrikaya,Ovit Dağ,Anzer area

Vavilovia formosa Mor Yayla

Vicia alpestris

Vicia canescens Anzer Yayla, Mor Yayla Vicia cracca Mor Yayla, Anzer, etc

Vicia truncatula Ovit Dağ

Fagaceae

Castanea sativa Widespread e.g. Güneyce?

Fagus orientalis Common in forest on northern slopes

Quercus macranthera En route to Laşet?

Quercus petraea Güneyce, etc

Fumariaceae

Fumaria procumbens Anzer Yayla Corydalis alpestris Anzer Yayla.

Corydalis conrhiza Anzer Yayla. Handsome lilac-blue species in scree

Corydalis rutifolia

Gentianaceae

Blackstonia perfoliata Cam Pass

Gentiana asclepiadea Widespread, fine flowering plants at Karagol

Gentiana cruciata Çam Pass

Gentiana gelida Handsome creamy-white species, Ardahan-Kars area

Ovit Dağ

Gentiana nivalis

Gentiana olivierii

Gentiana pyrenaica Widespread small purple species e.g. Ovit Dağ, Anzer Yayla etc.

Gentiana septemfida Widespread and common in higher areas e.g. Ovit Dağ, Pişenkaya, Çam

Pass etc. large trumpets on long, leafy stems

Gentiana verna Scattered e.g. Anzer area, deep blue

Gentianella caucasica Soft-pink gentian, Çam Pass

G.gelida x G.septemfida Çam Pass

Swertia iberica Widespread e.g. Ovit Dağ, Cam Pass, Taskiran etc.

Geraniaceae

Geranium asphodeloides Mor Yayla, also pink form near Ardahan

Geranium cinereum Both the dark eyed and white centred forms were seen. Widespread and

locally common e.g. Ovit Dağ, Mor Yayla

Geranium collinum Cildir Lake

Geranium ibericum Widespread and common at higher levels especially e.g. Anzer

Yayla, Mor Yayla

Geranium psilostemon Widespread e.g. en route to Ovit Dağ, Anzer Area, tall, deep magenta

with black-eye

Geranium pyrenaicumScattered e.g. SivrikayaGeranium robertianumWidespread e.g. Sivrikaya

Geranium sanguineum En route to Barhal?

Pelargonium endlicherianum En route to Barhal

Grossulariaceae

Ribes alpinum Demirgören Valley Ribes orientalis Above Barhal

Hippuridaceae

Hippuris vulgaris Çıldır Gölü

Hypericaceae

Hypericum androsaemum

Hypericum armenumAnzer YaylaHypericum hyssopifoliumSivrikaya

Hypericum lydium

Hypericum orientaleOvit DağHypericum linaroidiesCam Pass

Hypericum scabrumCorymbs of golden flowers, Mor YaylaHypericum perforatumWidespread in meadows e.g. Sivrikaya

Juglandaceae

Juglans regia Widespread orchard tree

Pterocarya fraxinifolia

Lamiaceae

Ajuga orientalis Widespread e.g Ovit Dağ

Ballota rotundifolia Yaylalar

Calamintha grandiflora Woodland edge, large, long tubed pink flowers, scented leaves, e.g.

Anzer

Clinopodium vulgare Ovit Dağ ?
Dracocephalum aucheri Mor Yayla
Galiopsis ladenum Mor Yayla

Hyssopus officinalis

Lallemantia canescens Mor Yayla

Lamium album Widespread e.g. Anzer Yayla, Pişenkaya

Leonorus glaucescens Çıldır Gölü ? Lycopus europaeus Taşkıran

Mentha longifolia Widespread and common e.g. Mor Yayla

Origanum acutidens Sivrikaya

Origanum rotundifolium Common in drier valleys, large creamy bracts, widespread e.g.

Pişenkaya, Taşkıran

Origanum vulgare Scattered in mountains, roadsides e.g.Sivrikaya?

Prunella vulgaris Widespread e.g. Sivrikaya

Salvia forskahlei Ortan, lilac-blue flowers, Sivrikaya?

Salvia glutinosa Common in damper woodland edges e.g. Anzer area, Çam Pass

En route to Çıldır Gölü

Salvia nemorosa

Salvia sclarea

Salvia verticillata Widespread e.g. Anzer Yayla

Scutellaria albida Small white flowers on spikes, roadsides e.g. Yaylalar

Scutellaria orientalis Yaylalar,en route to Çıldır Gölü?
Scutellaria pontica Pretty pink species, Ovit Dağ
Stachys balansae Ovit Dağ, Mor Yayla, Pişenkaya

Stachys macrantha Common in higher area, loose heads of long-tubed pink flowers e.g.

Sivrikaya, Mor Yayla

Stachys macrastachya Deep pink dense spikes, Mor Yayla

Teucrium chamaedrys Widespread e.g. Anzer Yayla, Mor Yayla, Yaylalar

Teucrium orientale Pretty blue species at Mor Yayla

Teucrium polium Yaylalar

Thymus praecox Alpine turf e.g. Ovit Dağ

Thymus transcaucasicus Mor Yayla

#### Lemnaceae

Spirodela polyrhiza

#### Lentibulariaceae

Pinguicula balcanica Ovit Dag, a butterwort

Linaceae

Linum austriacum En route to Çıldır Gölü

Linum catharticum Ovit Dağ, Anzer yayla

Linum hypericifolium

Linum tenuifolium Laset

Lythraceae

Lythrum salicaria Widespread e.g. Anzer Yayla, Pişenkaya

Malvaceae

Alcea apterocarpa Barhal area
Alcea hohenackeri Anzer Yayla

Alcea celvertii Laset

Alcea dissecta En route to Olgunlar

Althaea cannabina Barhal

Malva neglecta Widespread e.g. Barhal

Monotropaceae

Monotropa hypopithys Pale yellow saprophyte – yellow bird's nest, woods, Çam Pass

Moraceae

Morus alba Orchards Morus nigra Yusufeli

Ficus carica Widely planted

Nymphaeaceae

Nymphaea alba Çıldır Gölü

Oleaceae

Fraxinus excelsior Scattered in damper situations e.g. Pişenkaya

Olea europaea Olive groves in lower areas, Yaylalar

Onagraceae

Epilobium alpestre Ovit Dağ

Epilobium dodonaei Like a more slender rosebay willowherb, Pişenkaya, Olgunlar

Epilobium hirsutum Mor Yayla

Epilobium ponticum Widespread by streams and wet areas e.g. Anzer area

Chamaenerion angustifolium Abundant e.g. Ovit Dağ

Circaea lutetiana Woods, Anzer area

Orobanchaceae

Orobanche alba Mor Yayla
Orobanche lutea Sivrikaya

Orobanche mutelii

Orobanche pubescens Ovit Dağ Orobanche ramosa Yaylalar Oxalidaceae

Oxalis acetosella Woods, Sivrikaya

Papaver fugax Smallish pale orange flowers in Barhal area, Yaylalar

Papaver lateritium Fine orange flowered species in mountains e.g. Ovit Dağ, Mor Yayla

Papaver orientale Pişenkaya, Olgunlar

Glaucium corniculatum Barhal

Chelidonium majus Barhal area, Sivrikaya

**Parnassiaceae** 

Parnassia palustris Widespread e.g. Çamlık

Phytolaccaceae

Phytolacca americana Scattered alien

Plantaginaceae

Plantago lanceolata

Plantago major Widespread e.g. en route Ovit Dağ

Plumbaginaceae

Acantholimon ulicinum Mor Yayla, spiny cushions with pink flowers

Plumbago europaea Barhal area

Polygalaceae

Polygala alpestris Karagol

Polygala anatolica Larger pink species, Anzer area, Çam Pass

Polygala major

Polygonaceae

Oxyria digyna

Polygonum alpinum Widespread e.g.Anzer Yayla, Mor Yayla

Polygonum amphibia Karagol

Polygonum bistorta ssp.carneum Widespread e.g. Mor Yayla, Anzer, Çam Pass, deep pink. Long stems.

Polygonum hydropiper Polygonum minor

Rumex acetosella

Rumex alpines Ovit Dağ, Anzer
Rumex angustifolius Mor Yayla
Rumex maritimus Çıldır Gölü?
Rumex caucasicus Anzer Yayla
Rumex cristatus Widespread

Rumex scutatus Scattered e.g. Anzer Yayla, Mor Yayla

Primulaceae

Lysimachia verticillaris Widespread in woodland edge, spikes of yellow e.g. Anzer

Yayla, Pişenkaya

Barhal

Lysimachia vulgaris

Primula algida

Primula auriculata Widespread in mountains e.g. Ovit Dağ, Mor Yayla, Pişenkaya etc.

Primula elatior ssp meyeri Handsome deep pink species, rosettes of crinkled leaves, loose heads e.g.

Ovit Dağ, Anzer Yayla

Primula longipes Ovit Dağ

Primula veris

Primula vulgaris Sivrikaya?

Punicaceae

Punica granatum Orchards ,Barhal area

Pyrolaceae

Pyrola rotundifolia Woods,Barhal Orthilia secunda Woods ,Barhal

Ranunculaceae

Aconitum anthora Pale yellow species, common on Çam Pass

Aconitum nasutum Tall blue species on Çam Pass

Aconitum orientale Whitish to lilac, slender flowers, large dissect leaves, Anzer Yayla and

Çam Pass

Anemone albana Scattered with a few in flower at Mor yayla
Anemone narcissiflora Leaves on Anzer Yayla,in flower at Çam Pass

Aquilegia olympica Anzer area, Barhal area prefers to be among rhododendron scrub

Ovit Dağ

Caltha polypetala

Clematis orientalis Yusufeli

Clematis vitalba In flower near Barhal

Consolida regalis

Consolida orientalis

Delphinium dasystachyum Mor Yayla

Delphinium formosum Anzer and Cam Pass, in meadows, tall with deep blue flowers, close to

 ${\it flexuosum}$  but I now believe all of the tall delphiniums are this species.

Delphinium flexuosum Previously recorded for Cam Pass, however, I think these may all be

formosum given the their greater height (well in excess of 100cm) and

altitude (2400m) and given distribution in the Turkish Flora

Delphinium linearilobum

Delphinium schmalhausenii Some of the tall delphiniums with very dissect leaves on the Çam Pass

are this species

Paeonia mascula Pişenkaya

Ranunculus brachylobus Fine golden flowered species en route to Ovit Dağ?

Thalictrum minus Sivrikaya, Anzer Yayla

Trollius ranunculinus Widespread leaves e.g. Barhal

Rhamnaceae

Frangula alnus Barhal area

Myricaria germanica

Paliurus spina-christi Widespread e.g. en route to Barhal

Rosaceae

Agrimonia eupatorium Slender spikes of yellow flowers, meadows. Widespread e.g. Anzer

area, Pişenkaya

Alchemilla mollis Yaylalar Alchemilla sericea Anzer Yayla

Aruncus vulgaris Widespread e.g. Ovit Dağ, Pişenkaya

Crataegus monogyna

Crataegus orientalis Barhal area Filipendula ulmaria Çam Pass

Filipendula vulgaris En route to Çıldır Gölü?

Fragaria vesca Widespread e.g. Pişenkaya, Dibe Yaylalar

Geum coccineum Anzer Yayla
Geum rivale Çam Pass

Laurocerasus officinalis

Mespilus germanica

Potentilla adsharica Mor Yayla

Potentilla argentea Mor Yayla, Dibe Yaylalar

Potentilla crantzii Widespread e.g. Ovit Dağ, Anzer Yayla

Potentilla erecta

Potentilla rupestris Mor Yayla

Potentilla recta Mor Yayla, Sivrikaya etc.

Pyrus salicifolia

Rosa canina

Rosa heckeliana Sivrikaya, Ovit Dağ?

Rosa villosa

Rubus idaeus Delicious! Widespread e.g. Pişenkaya

Rubus sanctus The widespread bramble

Sanguisorba minor Widespread e.g. Ovit Dağ, white flowers

Sanguisorba officinalis Reddish flowers, e.g. Cam Pass

Sibbaldia parviflora Widespread in mountains e.g. Ovit Dağ, Anzer Yayla

Sorbus aucuparia

Sorbus umbellata Mor Yayla

Rubiaceae

Asperula orientalis Barhal area

Asperula gracilis Anzer Yayla, mat-forming

Asperula pontica

Cruciata laevipes

Cruciata taurica Anzer Yayla, Mor Yayla

Galium incanum
Galium odoratum
Galium verum

Salicaceae

Populus tremulaCommon and widespread e.g. Anzer Yayla, Mor YaylaPopulus uzbekistanaWidely planted upright tree e.g. Anzer Yayla, Mor Yayla

Salix alba

Salix caprea Mor Yayla

Santalaceae

Thesium procumbens Anzer Yayla ,Mor Yayla

Saxifragaceae

Chrysosplenium dubium Scattered

Saxifraga cymbalaria Widespread little yellow species, ivy-like leaves e.g. Sivrikaya, Anzer

area

Saxifraga paniculata Widespread, common on rocks e.g. Ovit Dağ, Mor Yayla, encrusted leaves

Saxifraga rotundifolia Scattered e.g. Anzer Yayla, round, hairy leaves

Saxifraga sibirica Widespread in mountains e.g. Ovit Dağ, white flowers

Scrophulariaceae

Digitalis ferruginea Widespread and common, tall spikes of rust coloured flowers e.g. en

route to Ovit Dağ, Anzer Yayla

Euphrasia lebadensis Ovit Dagi Linaria genistifolia Anzer Yayla

Linaria grandifolia Pretty yellow flowers, Cicek Pass

Melampyrum arvense Widespread and common cow-wheat e.g. Anzer Yayla,Olgunlar
Odontites aucheri Slender bartsia with yellow flowers, quite widespread e.g. Mor Yayla

Pedicularis atropurpurea Largely over, tall spikes dark flowers, Ovit Dag

Pedicularis caucasica White flowers, low growing. Mor Yayla

Pedicularis comosa Tall white species, Mor Yayla

Pedicularis condensataOvit Dag, dense heads of creamy flowersPedicularis nordmannianaSmall pink species Ovit Dağ, Mor Yayla

Pedicularis pontica Ovit Dağ, Anzer Yayla

Rhynchocorys elephas Pretty yellow flowers, wide li[p and obvious yellow beak. Anzer area

Aktaş Gölü

Rhynchocorys orientalis Sivrikaya,en route to Ovit Dağ

Rhynchocorys stricta

Verbascum armenum Abundant at Mor Yayla, Anzer Yayla

Verbascum speciosum Çam Pass

Verbascum trichostylum Yaylalar

Veronica anagallis-aquatica Widespread e.g. Anzer Yayla

Veronica beccabunga Scattered e.g. Anzer Yayla, Mor Yayla

Veronica gentianoides Scattered in mountains, relatively large flowers in spikes, e.g. Ovit

Dağ, Anzer Yayla, Mor Yayla

Veronica orientalis Mor yayla

Veronica peduncularis

#### Simaroubaceae

Ailanthus altissima

#### Solanaceae

Atropa belladonna Scattered e.g. Anzer Yayla

Hyoscyamus niger Scattered e.g. Sivrikaya, Anzer Yayla

Solanum alatum Coruh Valley

Solanum nigrum Widespread e.g. Barhal area

**Tamaricaceae** 

Myricaria germanica Widespread e.g. Taşkıran

Tamarix smyrniensis

Thymelaeaceae

Daphne glomerata Widespread, but few in flower e.g. Ovit Dağ roadside, Anzer area

Tiliaceae

Tilia rubra Barhal area

*Ulmaceae* 

Celtis glabrata Barhal area ?
Ulmus glabra Anzer area

Urticaceae

Urtica dioica Widespread e.g. Anzer Yayla, Pişenkaya

Parietaria judaica

Urticulariaceae

Pinguicula balcanica ssp. pontica

Urticularia vulgaris

Çıldır Gölü

Valerianaceae

Yaylalar

Centranthus longiflorus

Valeriana alliarifolia Widespread and common, large triangular leaves, huge corymbs of

flowers, but largely over.E.g. Sivrikaya, Ovit Dağ, Anzer Yayla etc.

Violaceae

Viola altaica Anzer Yayla

Viola arvensis Scattered e.g. Anzer Yayla, Çam Pass

Viola dichroa Mor Yayla

Viola odontocalycina Pretty species in scree at Mor Yayla

Vitaceae

Vitus vinifera Grapevine. Widespread

Alismataceae

Alisma plantago-aquatica Çıldır Gölü?

Commelaceae

Commelina communis Sivrikaya, pretty blue flowers?

Dioscoreaceae

Tamus communis Scattered e.g. Anzer area

Schoenoplectus lacustris

Butomaceae

Butomus umbellatus Çıldır Gölü?

Iridaceae

Crocus scharojonii

Liliaceae

Allium atroviolaceum

Allium guttatum Yaylalar

Allium olympicum Olgunlar, Cam Pass, this is possibly the delicate little species seen here

Allium szovitsii Anzer yayla
Allium schoenoprasum ssp.sibiricum Ovit Dağ, etc

Allium sphaerocephalon

Colchicum speciosum Anzer Yayla, Yaylalar

Leaves, Ovit Dağ

Gagea villosa Gagea glacialis

Lilium ponticum Near Ovit Dag

Polygonatum orientale Scilla winogradowii

Veratrum album Scattered, large ribbed leaves e.g. Anzer Yayla, Pişenkaya

Orchidaceae

Coeloglossum viride Sivrikaya, Anzer Yayla, Pişenkaya

Dactylorhiza iberica

Dactylorhiza osmanica Anzer area, Mor Yayla

Dactylorhiza urvilleana En route to Çamlık, etc slender

Epipactis helleborine Anzer area Epipactis veratrifolia Anzer Yayla

Epipogium aphyllum Over 100 in flower near Laşet

Goodyera repens

Neottia nidus-avis Laset

Gymnadenia conopsea Barhal area?
Traunsteinera sphaerica Sivrikaya

#### Poaceae

Briza macrowiczii ? Ovit Dağ Briza minor Yaylalar

Briza media

Holcus lanatus

Melica ciliata Yaylalar

Phleum alpinum Mountain meadows, hare's foot e.g. Ovit Dağ

Poa alpineAnzer, etcStipa arabicaMor Yayla

#### Potamogetonaceae

Potamogeton natans

## **Typhaceae**

Typha latifolia

#### **Systematic List Number 2 Butterflies**

#### This list was compiled by Peter Waterton

Swallowtail Papilio machaon. Swallowtail Iphiclides podalirius. Apollo Parnassius apollo. Clouded Apollo Parnassius mnemosyne.

Large White Pieris brassicae. Black-veined White. Aporia crataegi. Small White. Artogeia rapae. Mountain Small White Artogeia ergane. Artogeia napi. Green-veined White Kreupers Small White Artogeia kreuperi. Eastern Bath White Pontia edusa.

Clouded Yellow Colias crocea. Pale Clouded Yellow Colias hyale. Balkan Clouded Yellow Colias caucasica. Gonepteryx rhamni Brimstone Powdered Brimstone Gonepteryx farinosa Wood White Leptidea sinapsis

Leptidea duponcheli Ilex Hairstreak Satyrium ilicis

Eastern Wood White

Alcon Blue

Common Blue

Satyrium abdominalis Gerhards Hairstreak Anatolian Fiery Copper Lycaena asabinus Small Copper Lycaena phlaeas Turkish Fiery Copper Lycaena ochimus Scarce Copper Lycaena virgaureae Lycaena tityrus Sooty Copper Lesser Fiery Copper Lycaena thersamon Balkan Copper Lycaena candens Little Tiger Blue Taurucus balkanicus Short-tailed Blue Everes argiades Little Blue Cupido minimus Holly Blue Celastrina argiolus

Iolas Blue Iolana iolas Eastern Baton Blue Pseudophilotes vicrama

Silver-studded Blue Plebejus argus

Reverdins Blue Plebejus argyrognomon Eastern Brown Argus Kretania eurypilius Geranium Argus Eumedonia eumedon Mountain Argus Aricia artaxerxes Blue Argus Ultraaricia anteros Gavarnie Blue Agriades pyrenaicus Riparts Anomalous Blue Polyommatus ripartii **Anomalous Blue** Polyommatus admetus Meleagers Blue Polyommatus daphnis Damon Blue Polyommatus damon Amandas Blue Polyommatus amandus Adonis Blue Polyommatus bellargus

Tankers Blue Polyommatus tankeri Nettle Tree Libythea celtis.

Polyommatus icarus

Maculinea alcon

Southern White Admiral

Hungarian Glider

Red Admiral

Painted Lady

Small Tortoiseshell

Comma

Silver-washed Fritillary

Limenitis reducta

Neptis rivularis

Vanessa atalanta

Cynthia cardui

Aglais urticae

Polygonia c-album

Argynnis paphia

Silver-washed Fritillary Argynnis paphia Dark Green Fritillary Argynnis aglaja High Brown Fritillary Argynnis adippe Queen of Spain Fritillary Issoria lathonia Twin-spot Fritillary Brenthis hecate Marbled Fritillary Brenthis daphne Caucasian Fritillary Clossiana caucasica Glanville Fritillary Melitaea cinxia Balkan Fritillary Boloria graeca Spotted Fritillary Melitaea didyma Lesser Spotted Fritillary Melitaea trivia. False Heath Fritillary Melitaea diamina. Heath Fritillary Melitaea athalia. Marbled White Melanargia galathea Balkan Marbled White Melanargia larissa.

Eastern Rock Grayling

Anatolian Tawny Rock Brown

Grey Asian Grayling

Hipparchia syriaca.

Pseudocharzara mniszachii.

Pseudocharzara geyeri.

Great Banded Grayling

Scotch Argus

Hewitsons Ringlet.

Caucasian Ringlet

Alpine Ringlet

Meadow Brown

Kanetisa circe.

Erebia aethiops.

Erebia hewitsonii.

Erebia graucasica.

Erebia melancholica.

Maniola jurtina.

Small Heath Coenonympha pamphilus.
Russian Heath Coenonympha leander.

Special of Wood

Speckled WoodPararge aegeria.Large Wall BrownLasiommata maera.Lederers HeathCoenonympha symphita.

Large Grizzled Skipper Pyrgus alveus.
Sandy Grizzled Skipper Pyrgus cinarae.
Oberthur,s Grizzled Skipper Pyrgus armoricanus.
Persian Skipper Spialia phlomidis.
Mallow Skipper Carcharodus alceae
Oriental Marbled Skipper Carcharodus orientalis.

Small SkipperThymelicus sylvestris.Essex SkipperThymelicus lineola.Large SkipperOchlodes venatus.Silver-spotted SkipperHesperia comma.