

# Lake Van

*Eastern Turkey*

## A Greentours Tour Report

23<sup>rd</sup> May – 5<sup>th</sup> June 2014

Leaders: Başak Gardner & Phil Benstead

### Day 1      May 23<sup>rd</sup>      to Istanbul

We all met up eventually at arrivals from an incredible array of departure locations; Copenhagen, Oslo, London, Dublin and Amsterdam, it took some time to get sorted but eventually we were in a vehicle speeding through a warm and sunny Istanbul late evening to our charming hotel in the Old Quarter. Meeting up with Başak at the hotel we discovered she had arranged an excellent fish restaurant for our evening meal. Some still had the energy after this late meal to walk the local site; the amazing Blue Mosque and the Hagia Sofia... Then there was just enough time a short night's sleep before our flight in the morning.

### Day 2      May 24<sup>th</sup>      Van to Doğubeyazıt

We were up very early this morning for breakfast at four-thirty and then on to the airport. There was no traffic this time and the journey was very short compared to the previous evening. Likewise the airport was quiet and we progressed efficiently through security, check-in and onto the gate.

Our flight was on time and we were soon heading east, crossing more or less the length of Turkey, a journey that takes almost two hours by plane. The weather was fine and sunny, fabulously so as we descended across Van's turquoise blue waters, the snow-rimmed crater of Nemrut Dağı marking the start of our descent and all the while to the south we could see line after line of very snowy mountains, many of them topping 3500m. There were neat villages perched among grassy basins and occasionally along the shore of the lake itself. We passed over Akdamar Island before banking round in a semi-circle and following the shoreline to the airport. Our baggage soon arrived and then it was out to meet our driver Cabbar.

We had a quick diversion to pick up Başak's boots and then we were off, heading out of town into the steppelands to the north. It took us a while to shake ourselves free of the expanding city, but soon there was nothing but wide open expanses and the occasional village and a seemingly out of place dual carriageway given the volume of traffic on it – not much! Our first stop was a large damp area which redshank, lapwing and black-headed wagtails called their home. There was an incredible sea of *Orchis pseudolaxiflora* colouring the field purple in places and amongst them more robust but equally purple heads of *Dactyorchiza osmanica*.

Sea arrow grass and the lousewort *Pedicularis comosa* were common. On the wing here we found our first butterflies, common blue and small heath seeming rather familiar... Odonata appeared too with the occasional patch of sun coaxing broad-bodied chaser and ornate bluet into flight. Black-headed buntings sang from nearby piles of rock and crested larks appeared and disappeared.

Dragging ourselves away we drove on a few kilometres and explored an area of dry steppe. This proved superbly productive with all manner of beautiful flowers, none better though than excellent and often immaculate purple blooms of *Iris barnumae*, our first oncocyclus iris of the tour. *Bellevalia longipes* had finished flowering (just) but there were *Muscari caucasicum* and *Muscari neglectum* in bloom. *Astragaluses* drew much praise with at least seven species present, notably the ground flowering *Astragalus angustiflorus*, the yellow blooms topped by a bonnet of long pinnate leaves. We also photographed *Rindera lanata*, patches of blue flowered, red-purple-bracted *Salvia multicaulis* mixed with masses of yellow *Astragalus caraganae*, and the lovely red *Adonis eriocalycina*. Overhead we watched migrating honey buzzards and Phil found our first tortoise but was easily trumped by the superb snake Liam found. There were many butterflies on the wing here including some nice Freyer's fritillaries.

Driving on we skirted the lakeshore, the intensity of colour of the lake's waters if anything seeming stronger even though we were now in the full glare of midday sun. Suphan Dağı, a dormant volcano that reaches 4400m and is Turkey's second highest mountain rose behind the lake, a sublime scene. We reached the northeast corner of the lake and left its shores at Bendimahı, not having time to stop and birdwatch (we'd save that for a later day) and instead following the Bendimahı River valley up into the hills. We stopped for a very pleasant lunch at Muradiye Waterfall which was most welcome after our very early start in the morning. The trout and chicken wings went down well but at the end of the meal it became apparent that the weather was deteriorating.

Moving on a tiny distance and with a storm gathering ominously behind us we dashed out of the vehicles to look at some fine *Iris ibirica* ssp. *elegantissima*. Forty or so black-purple blooms were topped with almost luminous white standards, these lightly edged in red. Our second oncocyclus iris of the day. There was some variation, two particularly pale plants were noted, but all were exceptionally large. Also here a few examples of the wonderful *Phelypaea tournefortii*. The impressive scarlet flowers of this strange parasite, essentially a broomrape with one large bloom, are an incongruous sight! Growing nearby were plenty of Bastard Toadflax, various Euphorbias – *cheiradenia* and *securigiana*, and the lovely prostrate *Astragalus anthylloides*, the pale pink flowers turning into inflated almost peanut-like seedpods.

The rest of the afternoon was taken up with driving to our hotel, arriving just after 1700 we had time to settle in before a Başak had quick recap through of some of the plants seen during the day and dinner. Tired after a long day many of us retired and slept.

Meanwhile Phil's nocturnal (pr)owling turned up a nice long-eared owl and a whole gang of fantastic William's jerboa bouncing around on the steppe out the back of the hotel. Something for tomorrow night...

### **Day 3      May 25<sup>th</sup>      Tendürek Pass**

A small sub-set of us convened at seven for a spot of birdwatching in the hotel grounds. Phil had already

had a good look around by this time and had found a female barred warbler, so the stage was set for some exciting birding. The owner of the hotel is rather keen on natural history and has planted plenty of trees and bushes, and as the surrounding area is entirely treeless this makes it a magnet for birds. Migration was still moving along nicely judging by the large diversity of species encountered.

There was not a huge number of birds present but as the day warmed they started to become more obvious. First up was a dainty female red-breasted flycatcher and this was followed by a steady stream of warblers; marsh, garden, olivaceous, willow and whitethroat predominating. Walking out into the open steppe produced 'scope views of red-backed and lesser grey shrike. Isabelline wheatears were commonplace and overhead we occasionally spotted some bee-eaters. Nearby goalposts were attractive to singing rock sparrows. Scarlet rosefinches gave bursts of song but could not be located – frustrating.

After breakfast we headed uphill, onto the pass that leads over Tendürek Dağı, back-tracking along the way we had come the day before. We spent all day exploring the slopes either side of the pass in most magical weather with wall-to-wall fantastic scenery.

Although the weather looked good we elected to do the highest site first of all as insurance and had an enjoyable two hours walking the hills and climbing up to some snow-melt areas. Tackling the first slope we found quickly found *Pulsatilla albana*, *Anemone narcissiflora* and *Gentiana verna*. Joost found a surprise orchid – *Coeloglossum viride*. With it was quite a bit of *Gagea glacialis* and on dryer spots *Gagea taurica*. Başak found *Arnebia pulchra*, and our first fritillaries, *Fritillaria pinardii*, as Snowfinches flew about us. Phil was busy looking for reptiles but turned up a small number of *Iris caucasica* and a nice drift of *Fritillaria* and the beautiful *Corydalis oppositifolia*, which made him popular with the rest of the team.

Lunch stop flora included *Allium akaka*, some remains of *Tulipa juliae* and *Iris caucasica*.

The lava fields just below our lunch stop were a potential site for another fritillary (*Fritillaria caucasica*) but sadly we could not find any flowering. One small area here though was jam-packed with *Bellevalia pycnantha*. The small stream here produced our first banded frogs.

Our last stop was in a north-facing gully by the road where there were many fine *Iris iberica elegantissima* flowers as well as the *Salvia limbata*, *Pedicularis condensata*, *Campanula stevenii*, *Primula auriculata* and *Dactylorhiza umbrosa*. Caucasian Agama was added to the list. After a welcome cuppa we headed back to the hotel.

Phil wandered the garden when we got back to see if anything was new-in and found two hawfinches and a golden oriole. What a great garden!

Phil's night walk was well-attended and we did rather well in a short amount of time. First up was a cracking view of a long-eared owl just outside reception. We left him alone quickly and moved on to the jerboa-infested steppe. Here we had no problems finding jerboa's but getting other people onto these hyper-active mammals as they dashed erratically over the steppe, dancing in the beam of the torch was another matter... We also found our first and much more obliging green toads. A nice end to a great day in the field.

## Day 4      May 26<sup>th</sup>      Ishak Paşa & the Çilli Pass

An early morning birdwatching trip was well attended. We drove across the flat plain to the edge of the lava flow at Ararat's foot and then through the lava, stopping for a nice male Finsch's Wheatear. We soon reached the wetland edge and spent the next hour making two stops and scanning the sea of wet grassland and scattered pools in front of us.

As usual here reptiles were easy to find and we spotted Caucasian agama, Rauch's stepperunner and the very localised sunwatcher (a toad-headed agama). The latter has a flattened almost circular body, a short stubby head and a widely banded tail. The camouflage, on the volcanic sands we spotted them on, was incredible. This is a rare species in Turkey, known only from the flanks of Mount Ararat.

There were birds to look at too with squacco heron and flocks of fly-by ruddy shelduck at the first stop. The second stop was better though and we spent most of our time going through the wildfowl here. Small numbers of mallard, shoveler, pochard, gadwall and even a male garganey were found. A second-year male Montagu's harrier shot past and out over the grassland were our first marsh harriers. White-winged and gull-billed terns hawked over the surface of the largest waterbody as a small gang of relaxed spoonbills looked on. A nice congregation of white storks was present too but then we had to tear ourselves away and head for breakfast and the rest of the day's activities.

After breakfast we headed for the Ishak Paşa Palace. The fortress sits high in the colourful multistrata-ed hills behind Doğubeyazıt, a quite fantastic location and one which overlooks what was once part of the silk route, and today is once again a major trading route. Unfortunately it was shut for some sort of filming so we did not get to look inside...

Instead we headed uphill. Başak walked us high onto the side of the ridge to look for the yellow tulips. Sadly these were not to be seen, though a few red ones were found, these *Tulipa juliae*. There were some superb mounds of *Androsace villosa*, the pretty little *Silene dianthoides* and the strange sinuate-leaved *Matthiola odoratissima*, a plant that after nightfall emits a very pleasant scent.

Several of us stayed lower down enjoying the birdwatching. Woodlarks sang from rocks. Chukars called above us. Three bunting species were seen, a couple of rock buntings, three or four grey-necked buntings, and some amazingly tame ortolan. Red-billed chough coursed along the cliff tops and two golden eagles flew in to sit nearby on the rocky ridge. Later we watched the latter hunting the incredibly abundant sousliks of this area. Unfortunately as we turned to head back for the van and lunch Hilary had an accident with a piece of grass and her eye and Başak had to take her to the local ER for a look-see. Whilst this was going on the rest of us lunched in the picnic area. The sousliks here were tame and very photogenic. Birds hopping about scavenging scraps included rock sparrow and western rock nuthatch.

After only a short wait the hospital team returned and we loaded up the van and drove out across the flat plain across the wide open landscapes, passing some very rustic villages, to an area of old lava hills that descend from Ararat's western slopes. Here there were dozens of perfect *Iris iberica* ssp *elegantissima* in excellent afternoon light. There were many other flowers too with deep purple *Gladiolus atrovioleaceus*, *Vincetoxicum fuscata* and after crossing an ocean of dainty white *Scandix iberica* there were slopes with hundreds of pretty *Polygala anatolica* in a variety of colours from pink to purple and also *Cerintho major* ssp

*auriculata*, the blue bells of *Campanula stevenii* and some pristine deep red-brown *Orchis coriophora*.

Phil wandered around checking the birds and found four species of wheatear breeding at the site and our first white-throated robin of the tour. Rufous scrub robins sang from the low scrub on the rock outcrops but we could not get a glimpse. Chunky bimaculated larks sang here too but we found them easily enough. Driving home we finally bumped into a small flock of rose-coloured starlings but as we slowed to a halt they made good their escape...

## Day 5      May 27<sup>th</sup>      Volcanos and wetlands

Then a small team accompanied Phil on an early visit back to the lake, primarily to get better photos of the sunwatcher agamas. In this we failed spectacularly but mainly because the birding on the lake was so good and we got very distracted. We occupied a suitable vantage point and were astonished to find that the set of birds was completely different from the day before – evidence that the birds we saw yesterday were probably still actively migrating.

We scanned the lake. The waders in were all new for us, a few avocet had replaced yesterday's stilts and the flocks contained little stint and ringed plover today. A few ferruginous ducks flew about and from the lake came the single boom of a bittern. Two whiskered terns flew through high and a good look at the distant agricultural fields on the other side of the lake produced a pair of cranes. Two male garganeys showed well.

After a speedy breakfast Phil checked the garden one last time for black-headed bunting, another hawfinch, more common rosefinches, penduline tit and three barred warblers. What a great little migrant trap this garden is.

It was another superb clear morning and Ararat shone icily at us as we breakfasted on the balcony of the hotel. The peak was still capped with cloud when we left, its honour intact. We said goodbye to the Sim-er Hotel and set off for the Iranian border and the so-called meteor crater. On the way we passed a very long queue of lorries taking up one carriageway of the road and stretching for miles. Waiting to cross the border...

The meteor site (actually a volcanic feature we suspected) consisted of a jackdaw-filled pipe into the earth. Not too deep but impressive all the same. Rock sparrows and Eastern rock nuthatch were nesting inside too and we flushed a nice pair of rollers when we arrived that we 'scoped later on nearby wires. We also got decent views of bee-eaters through the 'scope. The plants here were *Bungea trifida*, *Paronychia turcica*, *Salvia rosifolia*, *Silene odontopetala* and *Stachys inflata*.

Back-tracking we went into town to visit a supermarket to stock up on provisions and buy beer and wine. Our next hotel being dry. That done we headed back over the Tendürek Pass and back towards Lake Van. Our first stop was for orchids near Çaldıran, where we found *Orchis pseudolaxiflora* and *Dactylorhiza umbrosa*. Unfortunately it was very windy here which meant Phil had to settle for marsh and banded frogs as birds and invertebrates were in very short supply.

We had a quick stop at the bridge at Bendimahi. Great reed warblers sang lustily. Moorhen and water rail

could be heard in the reeds. A couple of bearded tits were glimpsed but then we had to move on.

Our lunch stop was in a busy recreation area overlooking a small rapid that was very busy with migrating pearl mullet (*Alburnus tarichi*). Huge shoals waited patiently downstream as the front-runners tried to tackle the obstacle. Fascinating stuff, this small cyprinid is endemic to Lake Van and undertakes a spring migration up the lake's tributaries to spawn. What with the fish and the picnic we did not have much time for birds here and moved on.

We continued westward, stopping for another short stop at remote Göldüzü, a rustic village on the edge of Arın Gölü. This lake is an even more amazing colour than Van, being bright turquoise in more or less any weather. We were still blessed with sun, but the 4400m peak of nearby Suphan Dağı rearing above us to the north had a cloudy hat.

A bunch of local kids greeted us with noisy and rambunctious enthusiasm as we set about checking out the wildfowl here. White-headed duck were the star birds, no time to count properly sadly but there were a good number of this globally endangered species. Other ducks included a good number of red-crested pochard and a single male tufted duck. Along the back edge were a few Mediterranean and black-headed gulls

Moving on we stopped one last time in some poplar-planted meadows in Adilcevaz. These held an impressive population of *Dactylorhiza umbrosa*, looking rather different from the form we'd seen at high levels in Çaldıran in the morning, here tall and leafy, and very variable in colour, ranging from dark magenta to white, with the latter predominating. Bogbean was also here. There were plenty of singing Olivaceous warblers in the trees and we also looked at Great Tit and a Cetti's Warbler. Then it was on to Tatvan, passing numerous possible stopping places on the way, but it really was time to get to our next hotel, set high upon the slopes of Nemrut Dağı volcano and finally reached in the middle of a squally rainshower. Despite the weather we could see that the hotel was perfectly situated, offering fantastic views out over the lake and the town.

## **Day 6      May 28<sup>th</sup>      Nemrut Dağı**

The area around the hotel was full of bird life before breakfast with rock sparrow and swifts nesting in the roof. Nearby fields produced ortolan bunting, shorelark and black-headed bunting.

After a breakfast with a view we spent the entire day up inside the crater of the Nemrut Dağı volcano. Being already more than half way up the mountain it didn't take long for us to reach the crater rim where we stopped and admired the view down into the caldera. Our first booted eagle put in an appearance here. Some six thousand years ago this would have been a volcano to rival Ararat in size but the top five or six thousand feet blew off and into the stratosphere, though a considerable amount of it landed nearby blocking the drainage of what would have been the upper tributaries of the Tigris. This led to the formation of huge Lake Van, which this morning lay gleaming in the sunlight below us.

Looking back inside the crater we could see the marvellous deep blue crater lake that fills a quarter of the caldera, the caldera walls made of cliffs and screes liberally sprinkled with birch and aspen forests and

streaked with snow. Nearer at hand lay obsidian and lava strewn hollows and slopes.

We drove down to the boulder fields at the bottom of the caldera and spent the morning exploring the beautiful rock gardens within. It was *Euphorbia denticulata*, named for the delicately fimbriate red-black shiny glands in the flowers, that first took the interest. Next was *Iris caucasica* which became more prolific as we walked down the slope, joined by bunches of *Onosma bracteatum* and patches of yellow *Linum triflorum*. Finally we encountered our first fritillaries. First was the butterscotch bells of *Fritillaria minuta*, set above wide bright shiny green leaves, a distinctive combination and very different from the *Fritillaria assyriaca* with its narrow glaucous leaves and narrow unflared bells. This grew just metres away and throughout the rest of the gullies we found them growing side by side, the *minuta* by melting snow and the *assyriaca* on the drier slopes abutting this, though often they were literally right next to each other. Perhaps not surprisingly there were hybrids, exhibiting various intermediate features, and these were quite frequent.

We watched two male white-throated robins chasing each other about. Woodlarks sang overhead taking it in turns with the numerous skylarks to dominate the soundscape. Hilary found the wonderful hawk-moth *Proserpinus proserpina* and Joan made Phil's day by finding a *Dorcadion* long-horn beetle (as yet unidentified). *Iris caucasica*, *Rindera lanata* and *Bornmuellera cappadocica* were some of the plants here. We found lovely *Corydalis oppositifolia* subspecies *rutifolia* in shaded areas and but sadly the strange 'Nemrut Dağı' form of *Puschkinia scilloides* was in fruit. This form is so different that we wonder that it hasn't been given a proper name yet. *Gagea luteoides* was common by snow melt and *Gagea uliginosa* grew on damp mossy ledges, and an unknown *Gagea* in similar situations. *Arabis caucasica* and *Solenanthus stamineus* flowered well amongst the rocks, which also held a small population of *Saxifraga sibirica*. Two Spur-thighed Tortoises were found, one huge, and everywhere there were Valentin's lizards, the males looking very smart with their green marbled backs and blue-speckled flanks.

We returned to the minibuses and set off down to the crater lake for a picnic. Whilst lunch was prepared the team searched a nearby rocky Aspen wood. Under these small trees was quite a population of *Dactylorhiza flavescens*, the Georgian Orchid, and just a few purple *Orchis pinetorum*. *Euphorbia macrocarpa* was impressive here.

In the afternoon we drove down through some remarkable scenery, slopes covered in beautiful bronze-leaved aspens, the understorey juniper, interspersed with scree slopes. Stopping by a small lake at the bottom we walked to the shoreline. Carla found our first roosting four-spot chaser dragonflies but the sun soon came out and they were on the wing in no time. Suddenly all around us were flying damselflies – all *Coenagrion lunulatum* or crescent bluets, a species which by some biogeographical quirk makes it into far eastern Turkey at this site.

One last stop inside the crater and we noted *Ranunculus crateris* and *Ranunculus diversifolius*, *Linum trinervium*, *Pulsatilla albana* and *Jurinella moschus*.

Driving back out over the crater rim and towards Ahlat we visited the old 12<sup>th</sup> century cemetery. Here we found some great bee-eaters and enjoyed the cultural diversion and brewed up some tea to go with our cakes. Then it was time to return to the hotel and dinner.

## Day 7      May 29<sup>th</sup>      Bitlis circuit

We departed our hotel on a hill at nine and trundled down to Tatvan and thence to a tiny village the other side where we spent a happy hour exploring the wooded slopes. Our prime target here were peonies and though we only found one small clump they were in fine condition, this being *Paeonia mascula*. The scrubby oak was a delight, if rather difficult to wander in! *Lathyrus rotundifolius* and *Lathyrus roseus* were both seen. The light shone through the fresh bright green foliage to the accompaniment of loud nightingale and golden oriole songs. Over the woodland a collection of hobbys were hawking for insects and inside the team found our first blue tits. In the understory we found Greater Butterfly Orchid, some of the typical white form and some decidedly greenish. Helleborines were in bud and one *Dactylorhiza flavescens* was still in flower. Phil stayed out in the open hunting for longhorn beetles and finally recording a few of the common white butterflies hitherto missing from the list. Mazarine blue surfaced at last too. Checking all the flowering *Ferrula* for invertebrates produced some nice robust *Orobanche kurdica*.

Our first stop on the Bitlis circuit was for a wet field full of orchids. The small roadside wetland held numerous broad-bodied chasers and a few blue-tailed damselflies. Driving on we stopped by a rushing mountain stream and looked in vain for *Iris sari*, unfortunately they were all over at this spot but we wandered a nearby slope very happily all the same. Plants noted here are *Trifolium* species like *Trifolium physodes*, *Trifolium arvense*, *Trifolium pauciflorum* and also *Legousia pentagyna* and *Cicer anatolicum*. Grey wagtails were spotted along the stream for the first time and a pair of lesser grey shrikes put in an appearance. Wandering the slope Phil found first a settled eastern spectre (*Caliaeschna microstigma*) and then a Turkish goldenring (*Cordulegaster picta*) both allowing plenty of photographs as they sat hardening off away from the water after emerging.

Driving on we stopped briefly for a stunning roadside *Campanula reuterana* and Phil and Carla watched a basking dice snake nearby on a rock in the river bed. Dipper was elusive here too. Next up was lunch. Phil bolted down a sandwich and headed to the nearby river and associated floodplain wetlands, which produced a huge number of Odonates. Dashing around produced none of the hoped-for gomphids but a number of species were added to the list including banded demoiselle, azure bluet, small bluetail, southern skimmer, broad scarlet and there were masses of ornate bluets to search through. Zitting cisticola called briefly.

Driving on we searched in vain for flowering *Aristolochia bottae*, plenty of leaves though and Başak spotted a nettle-tree butterfly. There was then a short break whilst the puncture on Phil's car was mended. The discovery that we did not have all the tools required to put on the spare resulted in a useful and rapidly assembled cast of helpful Kurdish men who did the job for us! Stopping in a flat meadow with a small stream running through it was a great idea. The botanists were released to graze the meadow covered with *Gentiana olivieri* and *Ornithogalum arcuatum*. Phil wandered the watercourses and nearby shallow reservoir and pointed out some nice desert tree frogs. The Odonata here were excellent and we all enjoyed the numerous red-veined darters. Common winter damsel and migrant spreadwing were found here too and our first snake-eyed lizard put in an appearance.

Our last stop was in a narrow gorge with a babbling stream. *Campanula involucrata*, *Centaurea triumfettii* and *Aethionema grandiflora* were some some of the plants here. More grey wagtail here and we did not have to wait long before we heard the song of the cinereous bunting. A glimpse was all we got though as they were



busy feeding young in the nest. After a hot day in the field Başak treated us to an icecream in Tatvan on the way home and we dropped the tire off to be mended...

## **Day 8      May 30<sup>th</sup>      South Lake Van**

Today we packed our bags and headed out to investigate an area Başak had identified as a likely site for the much-wanted Komper's orchid. At the start of the road we pottered about. The banks were full of *Aethionema grandiflorum* and possibly *Aethionema membraneceum* and further on we noted *Opopanax persicus* and possibly *Onosma polyoxanthum*. Invertebrates were good here, we found our first green-underside blues, mazarine blues and black-veined whites, some great weevils and jumping spiders. Moving on we stopped again and searched under the oak scrub. Phil went high up on to the ridge chasing butterflies and was rewarded with a perfect Komper's orchid. Rushing to the edge he called down and slowly but surely the team made their way to the top. Başak arrived first and found at least 15 more plants, all in perfect condition. A great result.

We took lunch under a spreading walnut tree, a nice comfortable spot and still with lovely weather. Then we explored some nearby poplar woods which had a good population of large forms of *Cephalanthera kotschyana*. These were exceptionally beautiful and easily reached too! From the nearby marsh came the song of the great reed warbler and a sleepy night heron flew about.

Driving on we stopped next on the road up to the Kizkunkiran Pass. The area below the pass finally produced *Iris sari* to our collective relief. In the shady area we found a brown flowered *Hesperis rupestris*. The botanists wandered amongst the irises and found other plants including a nice rhubarb-and-custard *Orobanche anatolica*. Butterflies were great here with eastern wood white finally appearing and Joan found a mass of mud-puddling blues in an irrigation channel. The blues here included the attractive Pontic blue and iolas blue. Mountain small white was a nice find here too.

Downhill, we soon reached a little area of woodland and meadow that was to be our last stop of the day. Golden oriole and olivaceous warbler were heard. There were masses of the local yellow rattle *Rhinanthus angustifolius* and some fine stands of *Gladiolus kotschyanus* in pastel mauves and pinks. However it was orchids we were seeking. Bug orchid proved rather common, and there were occasional pyramidal orchids too. We found a single *Ophrys mammosa* but the best though were some superb *Ophrys holoserica*. Depending on where you stood there were either masses of *Ornithogalum shelkovnokovii* or *Ornithogalum platyphyllum*. Both *Adonis eriocalycina* and *Adonis flammea* were seen and there was *Orobanche anatolica* too. And then it was on to the excellent Merit Hotel and a slap-up buffet and checklists.

## **Day 9      May 31<sup>st</sup>      Karabet Pass**

Phil and Başak took a pre-breakfast drive to teach Phil the route to the two birding locations near the hotel. We undertook two rapid assessments of these great sites and came back with a nice list of new species, including a great singing Savi's warbler.

After breakfast we set off for the high country under a blue sky. First stop was much lower down though,

by a rock smothered in the white flowers of the woody-based *Potentilla lignosa*. Pink *Hesperis persica* bloomed on the roadside bank and little *Campanula karakuschensis* was out of reach of most on the rockface. A rock thrush sang from the wires and there were several wheatears here, including the Kurdish wheatear we hoped for. Whilst we watched these Başak spotted our first blue rock thrush.

We headed up through very rustic Kurdish villages on the new asphalt road, so much quicker of course than the old road! Soon the mountains close to the road became snow-streaked and then patches of snow appeared by the roadside. This road takes us up over a very high pass, 2985m and we soon stopped to look at plants and enjoy our first alpine choughs and Radde's accentors.

Then higher up we stopped to enjoy *Puschkinia scilloides* which showered a pale green slope with blue, but there were also paler ice-blue plants, even more abundant, some along the road edge and many out further. These have just been named, *Puschkinia bilginerii*. *Gagea luteoides* was common and there were good populations of *Fritillaria minuta* and *Corydalis oppositifolia* too. Phil found a patch of *Merendera kurdica* that was well-received. A snowfinch gathered chilled insects from a nearby snow patch.

We headed up over the pass through fabulous scenery cresting the pass and continuing down the far side, the size of the scenery in all directions impressive. Our lunch spot was spectacular in all respects. A little roadside knoll had magnificent views down the valley towards Bahçesaray and all round to high snowy peaks. There was a high level of verticality at this spot! As the picnic and BBQ was set up we explored the little ridge below and found one of the floweriest spots imaginable. There were some wonderful specimens of pink *Tulipa humilis* and further down we managed to find one magnificent *Tulipa armena*. A goblet of brilliant red centred with black and yellow. There were some fine *Fritillaria crassifolia* about too, with groups of them particularly prolific on an area of limestone pavement where their vari-coloured green (almost pure in one or two) or more commonly dark red brown tessellated bells were shown off to wonderful effect. There was also a magnificent clump of *Iris caucasica* here with many flowers in bloom. *Rindera lanata* was particularly fine at this spot and *Eremurus spectabilis* would clearly shower the rocky slope with its yellow wands in a week or two. There was the usual suite of alpine buttercups, which is to say four species, but here we saw the unusual *Ranunculus polunini* leaves. Back on the top of the ridge was the architectural *Rindera albida*. Black Redstarts were seen as we munched on chicken wings and Turkish sausage.

After lunch we hunted for the lovely golden *Fritillaria minima*, a great rarity known from only one or two locations in the world. It took some time to locate it as it had finished in the normal spots and we had to back-track uphill to find it. But suddenly there it was. We had to scramble a bit to get to it but most managed it. Rhoddy did the rest of us a favour by finding a single plant growing out of the gravel on the track.

It was time to head back down through the Çatak valley ignoring the many fine plants visible from the minibus as we sped home. We would be returning in the morning to look at this section.

## **Day 10      June 1<sup>st</sup>      Dörümeç rivermouth and Çatak Valley**

Three of the team accompanied Phil for an early morning birding session at 0530 to the fantastic Dörümeç rivermouth. En route we spotted roller, bee-eater and crested lark and we were soon installed on top of a

bank that was being used by sand martins and bee-eaters and looking out over the rivermouth. A close night heron was well-received and further out we found our first flamingos and spur-winged plover. Bearded tits behaved well and we even watched one pair at close range grubbing about in the mud on the edge of the marsh. A bittern broke cover and plopped down out of sight in the marsh in front of us. Sedge warblers and the Savi's warbler were in full song and way in the distance we watched reed bunting soundlessly singing. Other birds of note included quite a few garganey, ruddy shelduck, red-crested pochard and our first little egrets. Eventually though it was time to leave.

After breakfast we set off again at nine, heading for the Catak Valley. Our first stop was amid open country where areas of relict steppe were interspersed with arable land. Here we enjoyed a wonderful display of *Iris paradoxa*, in beautiful condition and glorious clear sunshine. There were some groups of ten or more and lots of variety in the population with some plants having standards strongly blue-ink lined, others with standards of a curious pale green colour. All though had the narrow velvety falls that are so distinctive. Freyer's fritillaries were on the wing again here. Orange-lined *Onobrychis galegifolia* was common and we all enjoyed lovely *Moltkia caerulea*.

Now we moved through a gorge and into a high valley where some of the team joined Başak and walked up the barren-looking hill behind. The flat Earth Society meanwhile took a more reasonable stroll up the valley into the teeth of a strong wind and found some nice *Iris sari*, a pair of crimson-winged finches flew by and so did a pair of rose-coloured starling. The team up the hill found the last remnants of *Tulipa sintenisii* and some nice plants of *Bellevalia longistyla*. Eventually, and it took a while, we found the first plants of an iris up here. These looked very like *Iris sari* however as we explored up the hill we found plenty of variety with many of the plants small, and with strong blue tints in the standards (some were clear mid-blue!) and narrower falls than you would expect of *Iris sari*. It seems that this must be a hybrid population with *Iris sari* and *Iris paradoxa* the parents. Certainly *Iris paradoxa* we know comes to within three or four kilometres to the north (maybe closer) and *Iris sari* comes up from the south, so a meeting point is quite conceivable here. There were very many *Astragalus* on this slope, a few we knew like *Astragalus fragrans* and *Astragalus lagurus*, but many we did not know. The delicate *Convolvulus lineatus* grew with clumps of *Onobrychis* and on the way down we saw the dwarf furry *Astragalus nanus*.

Our picnic was taken by the pond above the village of Mezne. This sunny spot proved very attractive to butterflies. Along the track the spring-fed puddles attracted many blues, mostly Zephyr but also lesser chequered blue and there were skippers and fritillaries too and plenty of mountain small whites. Dragonflies around the pond included another winter damsel and Joan found a couple of male stonechats.

On our way down out of the valley we stopped in the gorge for some plants like *Silene swertifolia* and *Linum trinervium*. Grey-necked buntings and rollers were watched here. Our next stop was for some roadside *Eremurus spectabilis* and this proved to be an excellent spot with a Romanoff's vernal copper being the highlight for Phil at least and some *Ablepharus bivittatus* skinks were wriggling about.

Last up for the day was the ancient site of Çavuştepe, an important Urartian site. A female Finsch's wheatear appeared here and best of all a nice marbled white (*Melanargia grumi*). This site proved florally good too with more *Iris paradoxa*, *Dianthus crinitus*, *Allium chrysantherum* and then exhausted after another great day we headed for the hotel.

## Day 11      June 2<sup>nd</sup>      Erçek Gölü

A car-load of us convened at 0600 for the 'late' morning birdwatch and headed for the Van Marshes. Not quite as salubrious as the lovely Dörümeç rivermouth of yesterday but every bit as birdy. Unfortunately there was a big dog standing in the middle of the main flood and it proceeded to chase birds around briefly... Still we enjoyed the terrapins along the stream and then wandered towards the reedbed. Terns were evident with quite a few common terns and at least three little terns on show. Joan spotted a flamingo flying by, a great sight against the backdrop of the snowy mountains behind our distant hotel. We enjoyed watching little ringed plovers and found some engaging lapwing chicks. In the reed bed we had excellent views of paddyfield warbler and bearded tit, and the *caspia* thick-billed race of reed bunting showed well too here. All too soon though we had to head back for breakfast, as we bumped along the track on our way out we spotted a pair of little owls nesting in the piles of builder's waste. One bird stared at us angrily as we stared back.

We set off at nine, stopping briefly in town, and then were off on to the road to Iran due east of Van. After ten kilometres or so Erçek Lake appears, a large lake, set even higher than Van at 1900m and surrounded by hill or mountainous steppe, a wide open and very beautiful sparsely inhabited landscape. Our first stop was by a small marsh for many years now the home of a some fantastic white-headed ducks. We found at least 15 and watched the almost comical males displaying, their bodies swelling as they put their heads down, swollen blue bills pushed out and charge ..... There were great reed and paddyfield warblers and little grebes making a racket in the reedbed too. Out on the main lake a flock of black-necked grebes bobbed around.

Meanwhile the botanists explored the marshy fields and some steppe behind the marsh. *Ranunculus kotschyi* and *Ranunculus sceleratus* were in the wetter areas and orchids too, *Orchis pseudolaxiflora*. A very beautiful *Convolvulus galaticus* was found.

Moving on we found ourselves on the wide flat valley floor east of the main lake. Here the damp, slightly salt-imbued steppe had a vast population of the *Orchis pseudolaxiflora*. In places they grew thickly and there were very occasional white or strawberry milkshake forms. *Ornithogalum platyphyllum* was noted. Phil found a migrant spreadwing hiding amongst the blooms. From here we saw the first flocks of flamingos, we were to count at least 2000 over the next hour. Three breeding plumage cattle egrets appeared in roadside fields.

Our lunch spot was close by a tower hide put up to overlook Erçek's marshes and on arrival we flushed a great flock of flamingo. We also watched black-winged stilts, avocet, redshank, little ringed and Kentish plovers along the shore. As well as the common ducks another white-headed duck was seen.

During the afternoon we completed a circuit of the lake along quiet back roads and tracks through rolling arable and steppelands and all the time under a stormy threatening sky that somehow never delivered rain directly to us (just all around us). Hardly a car to be seen, just a few small Kurdish villages with cow dung 'hives' drying in the sun, and only the songs of the abundant larks as soundtrack. These comprised bimaculated lark, lesser short-toed lark and skylarks. There were also Tawny Pipits in small numbers and Long-legged Buzzards were seen on a number of occasions. At one point we heard black-bellied sandgrouse flying past. We photographed tall spires of *Eremostachys laciniata* and fields full of the red poppy *Glaucium*

*grandiflorum* and pink Sainfoin. We stopped for *Iris barnumae* but they had finished, but at this site we found lots of the lovely two-tone yellow *Salvia suffruticosa*. *Astragalus lagurus* was seen and in places the fine yellow *Astragalus caraganae* was abundant. The furry *Astragalus velenowskyii* was interesting. Butterflies were not so frequent due to the conditions, though did include knapweed fritillary and meadow brown.

## Day 12      June 3<sup>rd</sup>      Güzeldere Pass, Zernek & Albayrak

After breakfast we headed out along the road towards Başkale from the southeast corner of Lake Van. The day once again was bright and sunny and today was exceptionally clear with the snowy peaks standing out very clear above the turquoise waters. A roadside steppe stop produced some *Iris paradoxa* and *Orobancha caesia*.

Our next stop was dedicated wholly to birds. In a dry rather unpromising-looking valley we found our quarry with ease. It did not take us long to find the pair of delicate Mongolian finches, which showed well eventually on a nearby rock outcrop. At least six trumpeter finches were keeping them company. Finsch's wheatear was singing here too, a very birdy spot. Caucasian agamas and snake-eyed lizards scuttled about and an Egyptian vulture cruised overhead as we headed back down to the minibus.

We continued on up to the Güzeldere Pass not stopping until we reached the top and headed off on a dirt track to examine the very dwarfed alpine flora. This was rather good with some nice cushions of *Androsace villosa*, some with flowers so thick that was all we could see. The straw-coloured pom-poms of *Centaurea vanensis* grew with *Silene dianthoides*, veronicas and the gorgeous bright pink and silvery haired *Hedysarum cappidocicum*. Dalmatian Ringlets flew back and forth. Overhead a single lammergier scoured the hillside for bones.

For lunch we headed downhill and eastwards, eventually reaching the farmed country to the south of Albayrak, just a couple of kilometres from the Iranian border. On the steppe next to the road we could already see the shining yellow heads of *Iris urmiensis*. This is a fabulous iris, the whole flower being yellow of differing shades, many two-tone, some pale and a good number a bright rich butter yellow, even some egg-yolk yellow. The wide open landscapes allowed one to choose a background for those wide angle shots. Tawny pipits sang and parachuted back to earth and a male cuckoo advertised from a nearby pylon.

After lunch we took the road back to the pass stopping briefly near an army outpost. *Aethionema stylosum* was colouring the banks with the shades of pink and mauve. Afterwards we stopped by a roadside gully. Our bird target here was bluethroat and we spotted them almost immediately. A pair feeding young in the nest by the minibus! The race in eastern Turkey is *magna* with an unspotted shimmering blue throat. Also here good views of Radde's accentors, water pipit and snowfinch. There were good displays of *Primula auriculata* along the wet valley floor, in places with *Gentiana verna*. *Trollius ranunculinus* was going over and so too the *Fritillaria crassifolia* which clearly had been abundant not so long before. There were some nice *Allium akaka* too.

Then it was back towards Van, stopping en route for photos of the rather mythical-looking Hosap Castle. Overhead our first alpine swift and plenty of house martins. Along the stream here a nice male semi-collared flycatcher was feeding young.

Our last stop was by the turquoise Zerne Reservoir where the steppe cloaking the rather arid hills was sadly rather dry and over. There were fine stands of *Eremostachys laciniata* and we found its strange-looking brethren *Eremostachys molucceloides*. The pale lime bracted *Hymenocrater calcycinus* had blue flowers, the lovely *Salvia atropatana* had yellow, and the large bloomed *Salvia kronenburgii* had white. Large pale flowers of *Silene swertifolia* perched atop sticky stems. Orange-lined wands of creamy *Onobrychis galegifolia* were a pleasant sight as were more of the lovely *Iris paradoxa*. We found tall *Muscari longipes*, huge *Crambes*, and Heather enjoyed the abundance of insects visiting the flowers of *Ferula orientalis*.

## **Day 13      June 4<sup>th</sup>      Akdamar Island, the Urartu carpet shop & museum**

We made an early morning visit to Dörümeç rivermouth where things were fairly quiet. Aside from a single black tern we did not add to our bird list this morning. Three cattle egrets dropped in whilst we watched and we chased bearded tits around the reedbed fairly successfully. A hoopoe fed nearby and the Syrian woodpecker was hammering away on his telegraph pole as usual. It was time for breakfast.

After breakfast we took off south and then west along the shore of the lake, before pulling up at the ferry terminal and heading out to the island. This is always a most pleasurable experience as the boat chugs across the turquoise water the fabulous views of the mountains south of the lake opens up.

Landing, most went up to the newly restored church. The superb relief carvings had been repaired slightly, but were basically unchanged. Showing major scenes from the old testament (Jonah and the whale, David and Goliath, etc), plus the founding bishops, nevertheless, the main emphasis was on the local fauna (fish, birds, goats, deer, rabbits, etc) and flora, including a frieze of grape vines. Inside, the frescoes had been slightly brightened and the damaged plaster repaired. The whole has now been weatherproofed, with new windows, retiling of the roof and protection of the exterior against erosion.

Phil climbed to the high point of the island, through the cacophony of the nearby Armenian gull colony. Alpine swifts zoomed past at eye-level. Lesser kestrels were evident and three juvenile lanners obviously called the place home. From this lofty perch Phil spotted a drama unfolding below. Joan had sprained her ankle badly and was being ably assisted by our driver. Phil dropped down and got some ice... It was once round the lighthouse on the way back, we got to view the island from all angles and see just how many birds were breeding on this delightful sanctuary. Small boys were causing an uproar in the gull colony but we all got views of the lanners, lesser kestrels and alpine swifts and added little egret and night-heron to our island checklist.

Next stop was the excellent restaurant by the boat landing at Akdamar where we were treated to a fine lunch of 'et sote' served in sizzling dishes, this made of little pieces of various vegetables and lamb, and served with bulgur and salad – excellent! Afterwards we guiltily tried some fried pearl mullet, not asking how it had been acquired... Well sated we wandered the hill behind the restaurant looking at the flora and the many butterflies (mostly Amanda's blues but also including our only Essex skippers of the tour).

In the late afternoon Başak took us to the carpet shop and museum where there was much oohing and aahing at the many wonderful carpets and kilims shown. Lighter in the wallet in many cases we continued on into Van for some supermarket shopping.

At dinner we said our farewells to Başak and chatted away about the highlights of a very successful and enjoyable tour.

## **Day 14      June 5<sup>th</sup>      departure**

A leisurely morning, packing breakfasting and driving the short distance to the airport saw us all safely aboard our flight to Istanbul and hopefully on to suitable final destinations.

# Systematic List Number 1      Plants

The majority of the taxonomic order and nomenclature has been taken from the Turkish Flora (edited by P H Davis) although the more recent treatment of the orchids in Die Orchideen der Turkei (C. A. J. Kreutz) has been preferred for that group. Grateful thanks in particular to Rodney Burton, Peter Sheasby and Adil Guner for much of the original identifications and to Mervyn Southam for providing us with so much useful information on the umbellifers. Non-woody dicot and monocot species are in flower unless otherwise stated.

This is a composite list based on sightings from 2000 to 2014. Locations given cover all the years. The species seen this year is indicated blue.

## **Acanthaceae**

*Acanthus dioscoridis*                      In leaf and early bud along the south side of Lake Van. Summer 2004 found in good flower at several localities

## **Aceraceae**

*Acer hyrcanum*                      subsp.  
*tauricum*.                              South of Van circular.  
*Acer monspessulanum* subsp.  
*cinarescens*.                        South of Van circular. Çatak Road. Akdamar Island  
*Acer negundo*                        [2006 - between Van & Dogubeyazit]  
*Acer platanoides*                    2006 - Nemrut Dagi]

## **Apiaceae**

*Anthriscus cerefolium*                Muradiye Waterfall area and near Bolukyazi  
*Anthriscus nemorosa*                Hill above Tugkoyu Village southeast of Tatvan. Damp meadows near Ahlat also in Nemrut Crater  
*Apium nodiflorum*                    [2006 - near Adilcevaz]  
*Astrodaucus orientalis*             Scattered throughout  
*Bunium brachyactis*                 Noted near Dogubeyazit  
*Bunium cylindricum*                 South-facing lower slopes of Nemrut Dagi Volcano  
*Brunium ferulaceum*                 On the road to Çatak.  
*Brunium microcarpum*               Scattered throughout  
*Bunium paucifolium*                Noted around Dogubeyazit, the south side of Kurubas Pass, south of Van, and the environs of campsite 1km towards Gevas from Akdamar ferry  
*Bunium verruculosum*                Van Castle  
*Bupleurum falcatum* ssp.  
*polyphyllum*                        11km east of Kucuksu on the south Van circular  
*Carum carvi*                         2km west of Taslicay, east of Agri, and 1km east of Kucuksu on the south Van circular  
*Caucalis platycarpa*                East side of the Cilli Pass, Ararat, and 10km east of Ercek Golu and then shales 6km south along minor road  
*Chaerophyllum crinitum*             Near Ahlat. Muradiye  
*Chaerophyllum hakkiaricum*        The eastern approaches to the Karabet Pass



<i>Chaerophyllum macropodum</i>	West side of Lake Van
<i>Chaerophyllum macrospermum</i>	Damp meadows near Ahlat, 11km east of Kucuksu on the south Van circular and in oak scrub slopes a little west of Resadiye on the south Van circular Resadiye on the south Van circular
<i>Cymbocarpum anethoides</i>	Near Otanca in the Özalp direction from Van. ? Hillsides 3km east of Tuzluca. Or Turgenopsis foeniculacea
<i>Falcaria vulgaris</i>	East side of the Cilli Pass, Ararat. Leaves only; South of Van circular.
<i>Ferula amanicola</i>	Noted in the Bitlis/Tatvan area – leaves only
<i>Ferula angulata</i>	Ravine at Çatak-Karabet-Van road junction
<i>Ferula bernardii (stellata)</i>	(stellata) Crags and slopes south of the Sim-er Hotel, Dogubeyazit
<i>Ferula cf. elaeochrytis</i>	Muradiye Waterfall – leaves only
<i>Ferula haussknechtii</i>	Upstream from Muradiye Waterfall
<i>Ferula longipedunculata</i>	Souther shores of Van Lake – leaves only; On the road to Çatak. 2009
<i>Ferula orientalis</i>	West side of Lake Van. Bitlis Circuit
<i>Ferula rigidula</i>	Marly slopes at east end of Zerneke Reservoir on the Hosap road. Leaves only
<i>Grammosciadium comutum</i>	Ravine on the Bitlis to Bolukyazi road
<i>Grammosciadium daucooides</i>	? 11km east of Kucuksu on the south Van circular, the hill above Tugkoyu Village southeast of Tatvan, and 10km east of Ercek Golu and then shales 6km south along minor road
<i>Grammosciadium platycarpum</i>	Called Grammosciadium confertum on the tour. Muradiye Waterfall area and near Ulu Kumbet at Ahlat
<i>Grammosciadium pterocarpum</i>	Inside Nemrut Dagi Volcano crater, Karabet Pass
<i>Heptaptera anisoptera</i>	Not sure where Mervyn's specimen came from?
<i>Heracleum persicum</i>	Along the south Van circular. Leaves only at this
<i>Lagoecia aminoides</i>	Sason
<i>Lecokia cretica</i>	Muradiye Waterfall area. Leaves only 2009
<i>Laserpitium carduchorum</i>	Çatak
<i>Malabaila dasyantha</i>	Noted in the Ahlat area and Tendurek
<i>Malabaila lasiocarpa</i>	Ravine on the Bitlis to Bolukyazi road, Akdamar Island; On the road to Çatak
<i>Malabaila secacul</i>	Oak scrub slopes a little west of Resadiye on the south Van circular, also on Akdamar Island
<i>Myrrhoides nodosa</i>	Terraces at west edge of Dogruyol village near Bitlis
<i>Oenanthe sophiaea</i>	2005 in wet meadows a little south of the Van Circular en route to Hizan
<i>Opoponax persicus</i>	Muradiye Waterfall area – by the river; between Tatvan and Hizan.
<i>Pimpinella affinis</i>	? 1km east of Kucuksu on the south Van circular

<i>Pimpinella anthriscoides</i>	Eastern approaches to the Karabet Pass
<i>Pimpinella kotschyana</i>	West side of Van Golu
<i>Pimpinella peregrina</i>	Dogubeyazit area
<i>Pimpinella peucedanifolia</i>	Muradiye Waterfall area
<i>Pimpinella tragiium ssp. lithophila</i>	. Crags and slopes south of the Sim-er Hotel, Dogubeyazit Subsp.?. On the road to Çatak.
<i>Prangos acaulis</i>	Dogubeyazit area
<i>Prangos c.f. corymbosa</i>	
<i>Prangos ferulacea</i>	
	The walls of the Aras Valley 16km west of Tuzluca on the Kars road, and also at the Muradiye Waterfall area; Between Hosap and Guzeldere Pass.
<i>Prangos pabularia</i>	11km east of Kucuksu on the south Van circular
<i>Prangos peucedanifolia</i>	Where? Dogubeyazit area
<i>Prangos platychlaena</i>	West side of Lake Van
<i>Prangos uechtriztii</i>	Either on the eastern approaches to the Karabet Pass or en route to Guzeldere
<i>Prangos uloptera</i>	Dogubeyazit area
<i>Scandix aucheri</i>	Crags and slopes south of the Sim-er Hotel, Dogubeyazit
<i>Scandix iberica</i>	East side of the Cilli Pass, Ararat, 11km east of Kucuksu on the south Van circular, oak woodland and grazed valley west of Dogruyol near Bitlis, and at Bendimahi Marshes at NE
<i>Scandix pectin-veneris</i>	Bitlis Circuit
<i>Scandix stellata</i>	
<i>Seseli libanotis</i>	Between Hosap and Guzeldere Pass. Çatak Road
<i>Seseli peucedanoides</i>	Two forms of this variable species seen – neither greatly resembling the Western European forms! ? Marly slopes at east end of Zerne Reservoir on the Hosap road
<i>Smyrniopsis aucheri</i>	Muradiye Waterfall area 2009
<i>Smyrniium cordifolium</i>	Ravine on the Bitlis to Bolukyazi road and on Akdamar Island; between Tatvan and Hizan.
<i>Torilis leptophylla</i>	Akdamar Island. Muradiye. Ercek Lake
<i>Trinia scabra</i>	Dogubeyazit
<i>Turgenia latifolia</i>	Environs of Ayamis Castle north of Van and roadsides in the area; On the road to Çatak. Seeds from last year mostly!
<i>Zosima absinthifolia</i>	Between Hosap and Guzeldere Pass; south of the harbour for Akdamar ferry.
<b>Aristolochiaceae</b>	
<i>Aristolochia bottae</i>	Terraces at west edge of Dogruyol village near Bitlis. Also east of Ercek Golu.
<b>Asclepidaceae</b>	
<i>Vincetoxicum fuxcatum</i>	Cili Pass
<i>Vincetoxicum tmoleum</i>	Ahlat steppe

## Asteraceae

<i>Achillea arabica</i>	(biebersteinii) southwest shore of Ercek Golu. Dogubeyazit area
<i>Achillea vermicularis</i>	Environs of campsite 1km towards Gevas from Akdamar ferry; On the road to Çatak. Also east of Küçüksu
<i>Amberboa moschata</i>	The walls of the Aras Valley 16km west of Tuzluca on the Kars road
<i>Anthemis cretica</i>	on slopes of Nemrut Dagi. Cilli Pass.
<i>Anthemis wiedemanniana</i>	Bendimahi. Ercek
<i>Artemisia splendens</i>	? The eastern approach to the Karabet Pass – on a rock ledge above <i>Fritillaria minuta</i> . In bud.
<i>Bellis perennis</i>	widespread in meadows
<i>Carduus pycnocephalus</i>	between Tatvan and Hizan. Ishak Pasa?
<i>Carthamus lanatus</i>	2km or so south of the Kurubas Pass south of Van
<i>Centaurea albonitens</i>	Dry hills between Ercek Lake and Ozalp; between Hosap and Guzeldere Pass 2009
<i>Centaurea aucheri</i>	? 10km west of Dogubeyazit on the Agri road. Zernek
<i>Centaurea depressa</i>	Fields in Aras Valley near Calpala west of Igdir, also the southwest shore of Ercek Golu, and in Bendimahi Marshes at NE corner of Lake Van
<i>Centaurea glastifolia</i>	[2006 - in leaf only]
<i>Centaurea handelii</i>	2005 cliffs in the first gorge along the Çatak Road
<i>Centaurea iberica</i>	widespread, weedy.
<i>Centaurea karduchorum</i>	Steppe and fields 16km south of road 975 on the Çatak road – cliff above south-heading road
<i>Centaurea pseudoscabiosa</i>	? Nominated? Van Castle, Akdamar Island, and the environs of Ayamis Castle
<i>Centaurea pterocaula</i>	East side of the Cilli Pass, Ararat in leaf
<i>Centaurea pulchella</i>	Van Castle. In bud – stems strikingly pale. Çatak Road
<i>Centaurea rhizantha</i>	Ravine at Çatak-Karabet-Van road junction, and 2km or so south of the Guzeldere Pass
<i>Centaurea triumfettii</i>	Common. Meadows 1km northeast of Caldiran, inside Nemrut Dagi Volcano crater, and in steppe and fields 16km south of road 975 on the Çatak road
<i>Centaurea urvillei</i>	Subsp. <i>armata</i> Common in Van area
<i>Centaurea vanensis</i>	Slopes above and south of the Guzeldere Pass between Hosap and Baskale, and 10km east of Ercek Golu and then shales 6km south along minor road; above Ishak Pa'a Palace, Dogubayazit.
<i>Cephalorrhynchus tuberosus</i>	? Oak scrub slopes a little west of Resadiye on the south Van circular. Or <i>Cephalorrhynchus rechingeranus</i> ?

<i>Chardinia orientalis</i>	Dry hills between Ercek Lake and Ozalp; On the road to Çatak.
<i>Cichorium intybus</i>	Scattered throughout
<i>Cirsium arvense</i>	Subspecies vestitum. Scattered
<i>Cirsium hamosus</i>	?Cili Pass
<i>Cnicus benedictus</i>	Fields in Aras Valley near Calpala west of Igdir, and roadsides near the hotel at Ahlat. Also between Van-Muradiye-Dogubayezit. Also at Meteor
<i>Cousinia eriocephala</i>	Between Hosap and Guzeldere Pass.
<i>Cousinia nabelekii</i>	? 2km or so south of the Kurubas Pass south of Van
<i>Cousinia vanensis</i>	near Kurubas Pass.
<i>Crepis pulchra</i>	Nominate. Oak woodland and grazed valley west of Dogruyol near Bitlis, Akdamar Island
<i>Crepis sancta</i>	East side of the Cilli Pass, Ararat, Muradiye Waterfall area
<i>Crupina crupinastrum</i>	south of the harbour for Akdamar ferry.
<i>Crupina vulgaris</i>	Balaban Forest
<i>Echinops orientalis</i>	Ercek Lake
<i>Erigeron acer</i>	Ercek Lake
<i>Erigeron caucasicum</i>	Tendurek Mountain
<i>Filago arvensis</i>	Scattered
<i>Filago pyramidalis</i>	Bitlis circuit
<i>Gundelia tournefortii</i>	11km east of Kucuksu on the south Van circular, and on oak scrub slopes a little west of Resadiye on the south Van circular. Between Van and Bendimahi
<i>Helichrysum arenarium</i> Subspecies aucheri.	Between Hosap and Guzeldere Pass.
<i>Helichrysum arenarium</i> Subspecies rubicundum	. Environs of Ayamis Castle north of
<i>Helichrysum graveolens</i>	? South side of the Kurubas Pass south of Van
<i>Helichrysum plicatum</i>	Nominate. 11km east of Kucuksu on the south Van circular, and also at Van Castle
<i>Inula helenium</i>	South of Van circular.
<i>Inula macrophyllum</i>	2005 in leaf only – meadows north of Dogruyol on the Bitlis Circuit
<i>Inula peacockiana</i>	Bendimahi Marshes at NE corner of Lake Van, and 2km or so south of the Kurubas Pass south of Van; south of the harbour for Akdamar ferry. Mainly in bud.
<i>Jurinella moschus</i>	Inside the Nemrut Crater
<i>Koelpinia linearis</i>	Salt mine at Tuzluca, Around Sim-er Hotel near Dogubeyazit Fruit seen in 2005.

<i>Onopordum acanthium</i>	Scattered
<i>Onopordum carduchorum</i>	Bitlis circuit
<i>Rhagadiolus angulosus</i>	Environs of Ayamis Castle north of Van and roadsides in the area
<i>Scorzonera cana</i>	Crags and slopes south of the Sim-er Hotel, Dogubeyazit, and around Sim-er Hotel near Dogubeyazit; On the road to Çatak. . East side of the Çilli Pass, Ararat, inside Nemrut Dagi Volcano crater, and 10km east of Ercek Golu and then shales 6km south along minor road. Çilli Pass population had otherwise identical plants with yellow or violet flowers side by side!
<i>Scorzonera mollis</i> Subspecies <i>szowitsii</i>	? East shore of Ercek Golu
<i>Scorzonera parviflora</i>	Nominate. 10km west of Dogubeyazit on Agri road
<i>Scorzonera phaeopappa</i>	Inside Nemrut Dagi Volcano crater, in the ravine on the Bitlis to Bolukyazi road, and on slopes above and south of the Guzeldere Pass between Hosap and Baskale. In bud at the middle site otherwise leaves only
<i>Senecio eriospermus</i>	above Ishak Pa <sup>a</sup> Palace, Dogubayazit.
<i>Senecio taraxacifolius</i>	Widespread; weedy. East side of the Cilli Pass, Ararat, and on the southwest shore of Ercek Golu – dominant in areas of the former 2009
<i>Senecio vernalis</i>	
<i>Serratula serratuloides</i>	? 2km or so south of the Kurubas Pass south of Van
<i>Sonchus asper</i>	[2006 - scattered.]
<i>Tanacetum chiliophyllum</i>	10km west of Dogubeyazit on Agri road – in bud
<i>Tabacetum cappadocicum</i>	Dogubeyazit area
<i>Tanacetum argyrophyllum</i> ssp. <i>subulrescens</i>	Çatak Valley The walls of the Aras Valley 16km west of Tuzluca on the Kars road – on a cliff. On Pamuk Dagi between Igdır and Dogubayazit.
<i>Tanacetum partheniifolium</i>	above Ishak Pa <sup>a</sup> Palace, Dogubayazit.
<i>Tanacetum uniflorum</i>	11km east of Kucuksu on the south Van circular, and in oak woodland and the grazed valley west of Dogruyol near Bitlis
<i>Tanacetum zahlbruckneri</i>	[2006 - scattered]
<i>Taraxacum officinale</i>	
<i>Tragopogon buphthalmoides</i>	? 2km or so south of the Kurubas Pass south of Van
<i>Tragopogon coloratus</i>	2km or so south of the Kurubas Pass south of Van. Flowers purple, pappus purplish 2009
<i>Tragopogon dubius</i>	The Selcuk Cemetery at Ahlat, southwest shore of Ercek Golu
<i>Tragopogon longirostris</i> var. <i>abbreviatus</i>	Catak road junction
<i>Tripleurospermum decipiens</i>	Catak road
<i>Tripleurospermum disciforme</i>	1km east of Kucuksu on the south Van circular

<i>Tripleurospermum oreades</i>	? North-facing slopes on the Tendurek Pass, and the ravine at Çatak-Karabet-Van road junction
<i>Tripleurospermum parviflorum</i>	? Aras Valley near Calpala west of Igdir
<i>Tussilago farfara</i>	Widespread in leaf, Van and roadsides in the area – in bud 2009
<i>Xanthium strumarium</i>	Bitlis Circuit
<i>Xeranthemum annuum</i>	[2006]
<i>Xeranthemum longipapposum</i>	Scattered throughout around Lake Van
<b>Berberidaceae</b>	
<i>Bongardia chrysogonum</i>	2005. Roadsides between Van and Bendimahi
<i>Leontice leontopetalum</i>	Subspecies not known. In seed by Muradiye Waterfall. Should check next time as it might be <i>armeniacum</i> which hasn't been recorded in Turkey before?
<b>Betulaceae</b>	
<i>Alnus cordata</i>	? 2005 streamsides south of Lake Van
<i>Betula pendula</i>	Inside Nemrut Dagi Volcano crater. Also Cilli Pass.
<i>Populus alba</i>	Adilcevaz and near Tatvan
<i>Populus tremula</i>	Inside Nemrut Dagi Volcano crater, and the hill above Tugkoyu Village southeast of Tatvan
<i>Salix caprea</i>	2005 Bitlis Circuit
<i>Salix fragilis</i>	? Muradiye Waterfall area
<i>Salix triandra</i>	2km west of Taslicay, east of Agri
<b>Boraginaceae</b>	
<i>Alkanna froedinii</i>	Environs of campsite 1km towards Gevas from Akdamar ferry. Further west too!
<i>Alkanna orientalis</i>	Scattered throughout. Called various things on the tour including a <i>Moltkia</i> and <i>Anchusa</i> !
<i>Anchusa arvensis</i> <i>Subspecies orientalis.</i>	1km east of Kucuksu on the south Van circular. Looks like an odd <i>Lappula</i> .
<i>Anchusa aucheri</i>	Roadsides near the hotel at Ahlat and near Ayamis Castle and near Dogubeyazit
<i>Anchusa azurea</i>	Throughout.
<i>Anchusa leptophylla</i>	below Tendurek
<i>Anchusa strigosa</i>	Bitlis Circuit ..Like <i>azurea</i> but flower colour is dirty white.
<i>Arnebia decumbens</i>	Crags and slopes south of the Sim-er Hotel, Dogubeyazit
<i>Arnebia pulchra</i>	Tendurek Mountain
<i>Asperugo procumbens</i>	Crags and slopes south of the Sim-er Hotel, Dogubeyazit, the east side of the Cilli Pass, Ararat, and the terraces at west edge of Dogruyol village near Bitlis

<i>Buglossoides arvensis</i>	(Syn. <i>Lithospermum arvensis</i> ) Craggs and slopes south of the Sim-er Hotel, Dogubeyazit; Tendürek Pass.
<i>Caccinia macranthera</i> var. <i>crassifolia</i> .	
<i>Cerintho minor</i> Subspecies <i>auriculata</i> .	Scattered throughout. Nominate. Cilli Pass west of Ararat
<i>Cynoglossum montanum</i>	Nemrut Crater
<i>Cynoglossum officinale</i>	Muradiye Waterfall. Bitlis Circuit
<i>Cynoglossum vanense</i>	In flora as <i>montanum</i>
<i>Echium vulgare</i>	Catak Road
<i>Echium italicum</i>	Near Tatvan
<i>Heterocaryum szovitsianum</i>	? 10km east of Ercek Golu and then shales 6km south along minor road. Zernek.
<i>Lappula barbata</i>	Widespread
<i>Lappula squarrosa</i>	Widespread
<i>Lappula stricta</i>	Widespread
<i>Moltkia caerulea</i>	South side of Kurubas Pass, south of Van. Zernek. spp 10km east of Ercek Golu and then shales 6km south along minor road. Annual with fruiting pedicel curving round axis
<i>Myosotis</i>	Rugged hills above the Ishak Pa <sup>o</sup> a Palace by Dogubeyazit, and the north-facing slopes on the Tendurek Pass, and the
<i>Myosotis alpestris</i>	
<i>Myosotis diminuta</i>	Soguksu meadows south of Tendurek Pass
<i>Myosotis heteropoda</i>	? East side of the Cilli Pass, Ararat
<i>Myosotis minutiflora</i>	Muradiye Waterfall area
<i>Myosotis ramosissimum</i>	between Tatvan and Hizan. ? East side of the Cilli Pass, Ararat, and 1km east of Kucuksu on the south Van circular
<i>Myosotis stricta</i>	
<i>Myosotis sylvatica</i>	Tatvan, Tugkoyu Village
<i>Neostemma apulum</i>	Sim-Er
<i>Nonea anchusoides</i>	2005 east side of the Guzeldere Pass between Hosap and Baskale and Tendurek
<i>Nonea caspica</i>	Hillsides 3km east of Tuzluca, and east side of the Guzeldere Pass between Hosap and Baskale 2009
<i>Nonea melanocarpa</i>	between Tatvan and Hizan. Ishak Pa <sup>o</sup> a
<i>Nonea melanthera</i>	2005 along the Çatak Road
<i>Nonea pulla</i> Subspecies <i>scabrisquamata</i>	. 10km west of Dogubeyazit on
<i>Nonea pulla</i> Subspecies?	Between Hosap and Guzeldere Pass. 2006 - Nemrut Dage and another place on the Bitlis circuit. ]
<i>Nonea stenosphon</i>	
<i>Onosma albo-roseum</i> Var <i>sanguinolentum</i>	2005 Zernek

<i>Onosma araraticum</i>	bright yellow flowered around Tendurek
<i>Onosma bracteatum</i>	Sason
<i>Onosma isauricum</i>	Ercek Lake
<i>Onosma nemoricolum</i>	Meteor, widespread along south shore of Van
<i>Onosma polyoxanthium</i>	Near Tatvan
<i>Onosma procera</i>	(procerum) 11km east of Kucuksu on the south Van circular
<i>Onosma sericea</i>	(sericeum) Marly slopes at east end of Zernek Reservoir on the Hosap
<i>Paracaryum cristatum</i> <i>Subspecies carduchorum.</i>	Ravine on the Bitlis to Bolukyazi road, and 10km east of Ercek Golu and then shales 6km south along minor road
<i>Paracaryum racemosum</i>	South side of Kurubas Pass, south of Van, and 2km or so south of the Kurubas Pass as well
<i>Paracaryum strictum</i>	10km east of Ercek Golu and then shales 6km south along minor road. On Pamuk Dagi between Dogubayezit and Igdir.
<i>Rindera albida</i>	South side of Kurubas Pass, south of Van, and east side of the Guzeldere Pass between Hosap and Baskale 2009
<i>Rindera caespitosa</i>	10km east of Ercek Golu and then shales 6km south along minor road. Zernek
<i>Rindera lanata</i>	var. <i>canescens</i> Resadiye on the south Van circular and on the east side of the Guzeldere Pass
<i>Rochelia disperma</i>	2km west of Taslicay, east of Agri, the crags and slopes south of the Sim-er Hotel, Dogubeyazit and the east side of the Cilli Pass, Ararat. Bitlis Circuit.
<i>Solenanthis stamineus</i>	Muradiye Waterfall area, inside Nemrut Dagi Volcano crater, and east side of the Guzeldere Pass between Hosap and Baskale
<i>Solenanthis circinnatus</i>	Muradiye Waterfall area, oak scrub slopes a little west of
<i>Symphytum kurdicum</i>	Oak woodland and grazed valley west of Dogruyol near Bitlis
<b>Campanulaceae</b>	
<i>Campanula coriacea</i>	Scattered throughout. Leaves only
<i>Campanula crispa</i>	2005 in leaf. Rocks on the Tendurek and Cilli Passes
<i>Campanula flaccidula</i>	<i>Campanula stevenii</i>
<i>Campanula glomerata</i>	2005 another tiny species along the Çatak Road
<i>Campanula involucrata</i>	By campsite near Akdamar Ferry, Gevas
<i>Campanula karakuschensis</i>	11km east of Kucuksu on the south Van circular
<i>Campanula ledebouriana</i>	2005 tiny species noted along the Çatak Road and along south side of Lake Van
<i>Campanula reuterana</i>	[2006 - Çatak Road]
<i>Campanula reuterana</i>	2005 beautiful deep violet flowered species near Çatak



<i>Campanula stevenii</i>	Crags and slopes south of Sim-Er Hotel, Dogubeyazit, also 11 km east of Kucuksu on the south Van circular, and on oak scrub slopes
<i>Jasione supina</i>	Bitlis Circuit
<i>Legousia pentagonia</i>	Terraces at west edge of Dogruyol village near Bitlis
<i>Legousia speculum-veneris</i>	between Tatvan and Hizan.
<b>Caprifoliaceae</b>	
<i>Lonicera caucasicum</i>	Nominate. Oak scrub slopes a little west of Resadiye on the south Van circular.
<i>Rhus coriaria</i>	in the crater of Nemrut.
<b>Caryophyllaceae</b>	
<i>Arenaria cucubaloides</i>	11km south of Kucuksu, south of Tatvan
<i>Arenaria gypsophiloides</i>	Meteor
<i>Arenaria holostea</i> Subspecies <i>macrantha</i>	. Crags and rocky slopes south of the Sim-er Hotel, Dogubeyazit
<i>Cerastium armeniacum</i>	? Various spots around Muradiye Waterfall
<i>Cerastium dahuricum</i>	Just below Güzeldere Pass
<i>Cerastium longipetala</i>	Between Hosap and Guzeldere Pass.
<i>Cerastium purpurascens</i>	Tendürek Pass
<i>Cucubalus baccifer</i>	Oak woodlands near Resadiye on the south Van circular
<i>Dianthus crinitus</i>	Cavustepe
<i>Gypsophila bitlisensis</i>	Shales east of Ercek Golu, Ahlat area
<i>Gypsophila elegans</i>	Zernek Valley
<i>Gypsophila patrinii</i>	Crags south of Sim-er Hotel, Dogubeyazit and same crags above Ishak Pa <sup>a</sup>
<i>Gypsophila pulvinaris</i>	The Vegetable Sheep (purported to be <i>Gypsophila aretoides</i> Hotel, Dogubeyazit and also noted on the same crags above the Ishak Pa <sup>a</sup>
<i>Gypsophila ruscifolia</i>	Ahlat area
<i>Herniaria agaea</i>	2004. Tendurek. Sepals ciliate, leaves glabrous
<i>Herniaria glabra</i>	Scattered
<i>Herniaria incana</i>	Scattered
<i>Holosteum umbellatum</i>	Scattered throughout
<i>Lepyrodiclis holostioides</i>	Picnic site near Igdir
<i>Lepyrodiclis tenera</i>	? 'Kate's Gully' near the Ishak Pa <sup>a</sup> , Dogubeyazit. Petals pink. New to Turkey if correct!
<i>Minuartia acuminata</i>	? Just below Guzeldere Pass on the east side. New to Turkey if correct!
<i>Minuartia aiozoides</i>	Tendürek Pass
<i>Minuartia hamata</i>	Crags south of Sim-er Hotel, Dogubeyazit

<i>Minuartia hybrida</i>	Subspecies turcica. Between Dogruyol and Bolukyazi near Bitlis
<i>Minuartia juniperina</i>	On the road to Çatak.
<i>Minuartia lineata</i>	2km below Asaginarlica at foot of Karabet Pass, Zerne
<i>Minuartia sclerantha</i>	? Near Ayamis Castle and elsewhere
<i>Moenchia mantica</i>	Nominate. Noted in grasslands around Ahlat and Tatvan
<i>Paronychia kurdica</i>	South Van Circular and Akdamar Island
<i>Paronychia turcica</i>	Akdamar Island, Meteor
<i>Saponaria sp</i>	sp Aras Valley near Calpala – apparently not in flora? Same or another species seen on the Bitlis circuit!
<i>Saponaria kotschyi</i>	Bitlis Circuit
<i>Scleranthus uncinatus</i>	West Lake Van area; between Ercek Lake and Ozalp.
<i>Silene alba</i> Subspecies <i>ericalycina</i>	. Bendimahi, Cilli Pass; South of Van circular.
<i>Silene ampullaria</i>	on south slopes of Tendürek Pass; between Tatvan and Hizan; south of the harbour for Akdamar ferry. ? Caespitose white flowered campion in crevices on Van Castle may have been this species? In flower now though
<i>Silene araratica</i>	
<i>Silene arguta</i>	Tendürek Pass
<i>Silene capitellata</i>	Oak woodlands around Tatvan where common
<i>Silene cappadocica</i>	Cilli Pass and north of Erçek Lake
<i>Silene cartilaginea</i>	Çatak Valley
<i>Silene chlorifolia</i>	Çatak Valley
<i>Silene conica</i>	Adilcevaz area. Bitlis Circuit
<i>Silene conoidea</i>	Scattered throughout ? Near Muradiye Waterfall – possibly this species. Also Tendurek Pass
<i>Silene dianthoides</i>	
<i>Silene lucida</i>	Güzeldere Pass
<i>Silene marschallii</i>	Ishakpasa
<i>Silene odontopetala</i>	Çatak Valley and north of Erçek Lake
<i>Silene pungens</i>	High ridge south of Guzeldere Pass
<i>Silene saxatilis</i>	Çili Pass and north of Erçek Lake Crags and rocky slopes south of Sim-er Hotel, Dogubeyazit and above Ishak Pa <sup>o</sup> a Palace, Dogubayazit; in the crater of Nemrut; On the road to Çatak.
<i>Silene spergulifolia</i>	
<i>Silene subconica</i>	North of Lake Van

<i>Silene swertifolia</i>		Zernek
<i>Silene vulgaris</i>	Subspecies	
<i>commutata</i>		Wdespread, mainly in bud in
<i>Silene viscosa</i>		Zernek Valley
<i>Stellaria persica</i>		Near Bolukyazi
<i>Vaccaria hispanica</i>		Erçek Lake
<b>Chenopodiaceae</b>		
<i>Beta corolliflora</i>		? Muradiye Waterfall
<i>Chenopodium vulvaria</i>		? Shales east of Ercek Golu
<i>Bassia (Kochia) prostrata</i>		Scattered around Van
<i>Salsola ruthenica</i>		Near Tuzluca's salt mine
<i>Ceratocarpus arenarius</i>		Nemrut Crater and Zernek Valley
<b>Cistaceae</b>		
<i>Helianthemum ledifolium</i>		Between Van and Bendimahi
<i>Helianthemum salicifolium</i>		North slope of Nemrut Dagi and 2km below Kurubas Pass south of Van
<b>Convolvulaceae</b>		
<i>Convolvulus altheoides</i>		Graveyard along Hakkari Road
<i>Convolvulus arvensis</i>		Scattered
<i>Convolvulus calvertii</i>		2km or so south of the Kurubas Pass south of Van
<i>Convolvulus cantabrica</i>		Between Tatvan and Hizan; between Ercek Lake and Ozalp.
<i>Convolvulus galaticus</i>		Ercek Lake
<i>Convolvulus lineatus</i>		Catak Road
<b>Crassulaceae</b>		
<i>Rosularia aizoon</i>		south of the harbour for Akdamar ferry. Nemrut Dagi
<i>Rosularia elymaitiica</i>		[2006 - near Adilcevaz]
<i>Rosularia radiceflora</i>		Bitlis Circuit
<i>Rosularia</i>	<i>sempervivum</i>	Van Castle, Akdamar Island. Subspecies <i>kurdica</i> (given at the time as <i>Rosularia radiceflora</i> ) Nemrut Crater
<i>Subspecies persica</i>		Muradiye Waterfall area. <i>Sedum tetramerum</i> is now included in this species
<i>Sedum aetnense</i>		
<i>Sedum hispanicum</i>	Var.	Muradiye Waterfall area and on Akdamar Island
<i>semiglabrum</i>		
<i>Sempervivum</i>		cf. <i>armenum</i> on south slopes of Tendürek Pass – may be an incorrect identification?v
<i>Sempervivum davisii</i>		Rocky outcrops on the Tendurek Pass
<i>Umbilicus erectus</i>		Oak woodland and grazed valley west of Dogruyol near Bitlis and in oak scrub slopes a little west of Resadiye on the south Van circular
<i>Umbilicus tropaeolifolius</i>		Akdamar Island

## Cruciferae

<i>Aethionema arabicum</i>	Scattered throughout 2009
<i>Aethionema armenum</i>	Either side of Muradiye Waterfall
<i>Aethionema cordatum</i>	Tendurek Pass
<i>Aethionema elongatum</i>	North of Lake Van but flowers smaller and darker and plant more woody 2009
<i>Aethionema grandiflorum</i>	Widespread in the Van region. At least one more
<i>Aethionema membranaceum</i>	Between Van-Muradiye-Dogubayezit
<i>Aethionema speciosum</i>	? Hillsides west of Resadiye on the Van circular.
<i>Aethionema stylosum</i>	Albayrak Road
<i>Aethionema trinervium</i>	Ridge above the Ishak Pa <sup>o</sup> a and Guzeldere Pass
<i>Alliaria petiolata</i>	Scattered
<i>Alyssum condensatum</i>	? Nominate. Lip of Nemrut Dagi's crater
<i>Alyssum contemptum</i>	? 2km below Kurubas Pass – south of Van
<i>Alyssum dasycarpum</i>	? Tendurek and Caldiran areas
<i>Alyssum desetorum</i>	2005 Ishak Pa <sup>o</sup> a
<i>Alyssum lepidotum</i>	? 2km below Kurubas Pass – south of Van Craggs behind Sim-er Hotel and also shales east of Ercek Golu
<i>Alyssum linifolium</i>	? High ridge south of Guzeldere Pass
<i>Alyssum longistylum</i>	2km below Kurubas Pass – south of Van 2009
<i>Alyssum minus</i>	Ercek Lake and Zerneke Valley
<i>Alyssum pateri</i>	2005 Ishak Pa <sup>o</sup> a
<i>Alyssum stapfii</i>	? 2km below Kurubas Pass – south of Van
<i>Alyssum xanthocarpum</i>	Scattered – smells of pudding!
<i>Anchonium elichrysifolium</i>	
<i>Arabidopsis thaliana</i>	Between Dogruyol and Bolukyazi, near Bitlis 2009
<i>Arabis (Turritis) glabra</i>	Cilli Gecidi on Ararat
<i>Arabis caucasica</i>	Nominate. Widespread 2009
<i>Arabis montbretiana</i>	? Hillsides west of Resadiye on the Van circular
<i>Arabis nova</i>	Cilli Gecidi on Ararat; above Ishak Pa <sup>o</sup> a Palace. ? Aras Valley near Calpala; On the road to Karabet Pass.
<i>Barbarea minor</i>	Zerneke Valley
<i>Barbarea plantagineum</i>	Between Hosap and Guzeldere Pass.
<i>Bornmuellera cappadocica</i>	Widespread. 2009
<i>Capsella bursa-pastoris</i>	Bitlis Circuit
<i>Capsella rubelia</i>	2005 Muradiye and Nemrut Dagi
<i>Cardamine impatiens</i>	Scattered 2009
<i>Cardamine uliginosa</i>	

<i>Cardaria draba</i>	Widespread on road verges etc
<i>Cardamine uliginosa</i>	Below Güzeldere Pass
<i>Coluteocarpus vesicaria</i> Subspecies <i>boissieri</i> .	Lip of Nemrut Dagi crater
<i>Coluteocarpus vesicaria</i> Subspecies <i>vesicaria</i>	Above Ishak Pa <sup>o</sup> a Palaca, Dogubayazit and at Tendürek Pass. Roadsides – e.g. in the Agri area; south of the harbour for
<i>Conringia orientalis</i>	
<i>Conringia perfoliatum</i>	Dogubeyazit area
<i>Crambe orientalis</i>	Scattered throughout 2009
<i>Descurainia sophia</i>	Widespread in the Aras Valley and Dogubeyazit areas 2009
<i>Draba bruniifolia</i>	Subspecies indeterminate. A variety of forms were noted
<i>Draba cappadocica</i>	High ridge south of Guzeldere Pass. Rodney also spotted an
<i>Draba polytricha</i>	Above the Ishak Pa <sup>o</sup> a and on the Tendürek Pass. Tendürek Pass; Between Hosap and Guzeldere Pass.2009
<i>Draba rosularis</i>	
<i>Draba siliquosa</i>	Tendürek Pass.
<i>Drabopsis verna</i>	Tendürek Pass; in the crater of Nemrut.
<i>Erophila verna</i>	Scattered
<i>Erysimum alpestre</i>	Tendurek Pass, Ishakpaşa, Güzeldere Pass
<i>Erysimum leptophyllum</i>	? Scattered throughout the area north of Lake Van
<i>Erysimum sintenisianum</i>	Synonymous with <i>Erysimum alpestre</i> ? East side of the Kuskunkiran Pass south Van circular
<i>Euclidium syriacum</i>	Scattered
<i>Fibigia macrocarpa</i>	Ravine on road to Bolukyazi near Bitlis South of Kurubas Pass – south of Van,west of Ercek 2009
<i>Fibigia suffruticosa</i>	
<i>Hesperis bicuspidata</i>	2005 Zerneke 2009
<i>Hesperis persica</i>	On the road to Karabet Pass. Guzeldere 2009
<i>Hesperis rupestris</i>	Steppe between Ahlat and Tatvan
<i>Isatis buschiana</i>	Meteor, Albayrak
<i>Isatis cappadocica</i> Subspecies <i>steveniana</i>	Scattered in the Van area 2009
<i>Isatis glauca</i>	Steppe 10km west of Dogubeyazit. In bud
<i>Isatis tinctoria</i> Subspecies <i>tomentella</i>	? Ravine with road to Bulakyazi,2009
<i>Lepidium campestre</i>	Meadows just east of Kucuksu on the Van circular
<i>Lepidium cartilagineum</i> Subspecies <i>crassifolium</i>	. Near Ayamis Castle
<i>Lepidium latifolium</i>	Between Hosap and Guzeldere Pass. Locally common in the Dogubeyazit area as well as near
<i>Lepidium perfoliatum</i>	

<i>Lepidium vesicarium</i>	This highly distinctive plant with very swollen stem nodes, Çavuştepe
<i>Malcolmia africana</i>	Scattered
<i>Matthiola anchoniifolia</i>	( <i>farinosa</i> ) 2005 Zerneç
<i>Matthiola odorantissima</i>	Nominate. Ridge above Ishak Pa <sup>o</sup> a.
<i>Matthiola longipetala</i> Subspecies <i>bicornis</i>	Guzeldere Pass and ravine at junction of road to Çatak 2009
<i>Neslia apiculata</i>	Noted west of Ercek; On the road to Çatak.
<i>Rorippa nasturtium-officinale</i>	between Tatvan and Hizan. Adilcevaz meadows 2009
<i>Rorippa sylvestris</i>	Near Çaldıran ? On shales to the east of Ercek Golu. New to Turkey! Similar to <i>Neslia</i> but with long straight style; petals whitish and a few simple hairs
<i>Schimperia arabica</i>	
<i>Sisymbrium i????</i>	
<i>Sisymbrium loeselii</i>	Scattered around Dogubeyazit and in the Aras Valley 2009
<i>Sterigmostemum incanum</i>	2km below Kurubas Pass – south of Van
<i>Thlaspi arvense</i>	? Meadows by Tugkoyu
<i>Thlaspi kurdicum</i>	? High ridge south of Guzeldere Pass. ?Cilli Pass in the crater of Nemrut; Between Hosap and Guzeldere Pass
<i>Thlaspi perfoliatum</i>	
<i>Torularia</i>	spp Crags south of Sim-er Hotel. Not in flora
<b>Cupressaceae</b>	
<i>Juniperus communis</i>	in the crater of Nemrut.2009
<i>Juniperus excelsa</i>	Mountainsides to the south of Kucuksu; between Tatvan and Hizan; On the road to Çatak. 2009
<i>Juniperus oxycedrus</i>	Ridge above Ishak Pa <sup>o</sup> a
<b>Dipsacaceae</b>	
<i>Centranthus longiflorus</i>	On the road to Çatak.
<i>Cephalaria syriaca</i>	? Environs of Ayamis Castle north of Van and roadsides in the area
<i>Pterocephalus kurdicus</i>	East side of the Guzeldere Pass between Hosap and Baskale. Akdamar Island.
<i>Scabiosa rotata</i>	2km or so south of the Kurubas Pass south of Van. Çatak Road. 2009
<i>Valeriana alpestris</i>	Between Hosap and Guzeldere Pass
<i>Valeriana dioscoridis</i>	Between Hosap and Guzeldere Pass.
<i>Valeriana leucophaea</i>	Slopes above and south of the Guzeldere Pass between Hosap and Baskale. Karabet Pass 2009
<i>Valeriana officinalis</i>	Rugged hills above Ishak Pa <sup>o</sup> a Palace, Dogubeyazit. Oak Woodlands south side of Lake Van 2009
<i>Valeriana sisymbriifolia</i>	Rugged hills above the Ishak Pa <sup>o</sup> a Palace by Dogubeyazit, also Muradiye Waterfall; On the road to Çatak. 2009

<i>Valerianella carinata</i>	Terraces at west edge of Dogruyol village near Bitlis
<i>Valerianella coronata</i>	Oak woodland and grazed valley west of Dogruyol near Bitlis, the ravine on the Bitlis to Bolukyazi road, and in oak scrub slopes a little west of Resadiye on the south Van circular 2009
<i>Valerianella cymbicarpa</i>	10km east of Ercek Golu and then shales 6km south along minor road, in the Muradiye Waterfall area, and in the environs of Ayamis Castle north of Van and roadsides in the area
<i>Valerianella dactylophylla</i>	Scattered throughout
<i>Valerianella oxyrhyncha</i>	Marly slopes at east end of Zerneke Reservoir on the Hosap road, and also 10km east of Ercek Golu and then shales 6km south along minor road
<i>Valerianella plagiostephana</i>	Scattered, common in the north
<i>Valerianella vesicaria</i>	Bitlis circuit
<b>Elaeagnaceae</b>	
<i>Elaeagnus angustifolius</i>	between Tatvan and Hizan. South Van Circular. 2009
<b>Ephedraceae</b>	
<i>Ephedra nebrodensis (major)</i>	Crags above Sim-er Hotel; Pamuk Dagı (W slopes of Agri Dagı) near Cilli Pass.
<b>Euphorbiaceae</b>	
<i>Euphorbia armena</i>	Near Sim-er Hotel
<i>Euphorbia arvensis?</i>	Between Igdir and Tuzluca – check!
<i>Euphorbia cheiradenia</i>	West side of lava plain north of Dogubeyazit 2009
<i>Euphorbia denticulata</i>	South-facing lower slopes of Nemrut Dagı Volcano, Inside Nemrut Dagı Volcano crater, Ravine at Çatak-Karabet-Van road junction 2009
<i>Euphorbia heteradena</i>	Scattered throughout
<i>Euphorbia kotschyi</i>	2006 - Degirmanli near Ercek]
<i>Euphorbia macrocarpa</i>	Inside Nemrut Dagı Volcano crater 2009
<i>Euphorbia macroclada</i>	West side of lava plain north of Dogubeyazit, South-facing lower slopes of Nemrut Dagı Volcano 2009
<i>Euphorbia petrophylla</i>	Bitlis circuit 2009
<i>Euphorbia seguieriana</i>	Nominate – southwest shore of Ercek Golu.
<i>Euphorbia seguieriana</i> Subspecies <i>niciana</i>	– Hillsides 3km east of Tuzluca
<i>Euphorbia szovitsii</i>	Cavustepe
<i>Euphorbia virgata</i>	Erçek Lake
<b>Fabaceae</b>	
<i>Astragalus aduncus</i>	Tendurek Pass

<i>Astragalus alyssoides</i>	North-facing slopes on the Tendurek Pass and east side of the Guzeldere Pass between Hosap and Baskale. Small, scapose
<i>Astragalus angustiflorus subsp. Angustiflorus</i>	2B, 10km east of Ercek Golu and then shales 6km south along minor road. Acaulous, yellow; between Tatvan and Hizan. 2009
<i>Astragalus armeniacus</i>	? Rugged hills above the Ishak Pa'a Palace by Dogubeyazit
<i>Astragalus bashkalensis</i>	Erçek Lake
<i>Astragalus bicolor</i>	? 2km or so south of the Kurubas Pass south of Van. Subscapose, lilac
<i>Astragalus cadmicus</i>	Dogubayazit area
<i>Astragalus camopylosema Subspecies nigripilis</i>	Marly slopes at east end of Zerne Reservoir on the Hosap road. Between Ercek Lake and Ozalp. Scapose
<i>Astragalus caraganae</i>	Roadsides near the hotel at Ahlat, Bendimahi Marshes at NE corner of Lake Van, and Muradiye Waterfall area. Caulescent, peduncles short, yellow
<i>Astragalus cicer</i>	Erçek Lake
<i>Astragalus chaldiranicus</i>	on hills near Caldiran.
<i>Astragalus cinereus</i>	Crags and slopes south of the Sim-er Hotel, Dogubeyazit. Scapose, yellow
<i>Astragalus clavatus</i>	? Between Ercek Lake and Ozalp.
<i>Astragalus cylindriacus</i>	? Scattered. Scapose, yellow
<i>Astragalus densifolius</i>	Ravine at junction of road to Çatak en route back from Karabet Pass. Scapose, purple
<i>Astragalus eriopodus</i>	Erçek Lake
<i>Astragalus fragrans</i>	North-facing slopes on the Tendurek Pass. Definitely seen west of Kuzgunkiran Pass 2009
<i>Astragalus galegifolia</i>	Ercek Lake
<i>Astragalus guttatus</i>	? East shores of Ercek Golu. An annual
<i>Astragalus halicacabus</i>	Muradiye Waterfall area - at entry side of valley. Muradiye Waterfall. also on the road to Catak
<i>Astragalus hirticalyx</i>	Between Ercek Lake and Ozalp.
<i>Astragalus hyalolepis</i>	? Rugged hills above the Ishak Pa'a Palace by Dogubeyazit. Scapose, purple
<i>Astragalus lagopoides</i>	South side of Kurubas Pass, south of Van and again 2km or so south of the Kurubas Pass. Spiny, racemes held above leaves. Calyx reddish; between Ercek Lake and Ozalp.
<i>Astragalus lagurus</i>	Catak, Pale pink, hairy long flower heads



<i>Astragalus latifolius</i>	Scattered throughout. Acaulous. Yellow, leaflets very few and broad. Common in the Zerneke area. 2009
<i>Astragalus lineatus</i> ssp. <i>longipes</i>	Güzeldere Pass
<i>Astragalus macrocephalus</i> subsp. <i>finitimus</i>	Between Hosap and Guzeldere Pass.
<i>Astragalus microcephalus</i>	Bitlis circuit
<i>Astragalus macrourus</i>	Oak woodlands west of Resadiye on the south Van circular. Scapose, yellow
<i>Astragalus nanus</i>	Catak, purple-pink globose flower heads, very hairy leaves
<i>Astragalus onobrychis</i>	Marly slopes at east end of Zerneke Reservoir on the Hosap road. Caulescent, purple
<i>Astragalus ornithopoioides</i>	10km west of Dogubeyazit on Agri road, Muradiye Waterfall area. Caulescent, purple
<i>Astragalus pinetorum</i>	? Meadows 1km northeast of Caldiran. Acaulous, yellow
<i>Astragalus rechingeri</i>	? The eastern approach to the Karabet Pass – actually at the crag above the picnic site. Spiny. White flowers with a pink flush
<i>Astragalus stevenianus</i>	Ercek Lake and Zerneke Vallley Caulescent, purple
<i>Astragalus subrobustus</i>	Catak Valley. Scapose, violet
<i>Astragalus szovitsii</i>	Meteor and Ercek Lake
<i>Astragalus velenowskyi</i>	Erçek Lake
<i>Astragalus viridissimus</i>	above Ishak Pasa, Prostrate, scapose, reddish-purple flower and calyx, hairless
<i>Cicer anatolicum</i>	Muradiye Waterfall area, Muradiye Waterfall area; between Tatvan and Hizan.
<i>Chesneya rytidosperma</i>	Meteor
<i>Colutea cilicica</i>	Oak woodlands near Resadiye on the south Van circular
<i>Glycyrrhiza glabra</i>	Hillsides 3km east of Tuzluca. Çatak Road and south side of Van Lake
<i>Hedysarum cappadocicum</i>	Marly slopes at east end of Zerneke Reservoir on the Hosap road, Guzeldere Pass
<i>Hedysarum varium</i>	Zerneke Valley
<i>Hedysarum syrtaoni??</i>	Akdamar Island
<i>Lathyrus aphaca</i>	Cilli Pass west of Ararat 2009
<i>Lathyrus brachypterus</i>	Kuzgunkiran Pass
<i>Lathyrus cicera</i>	Environs of Ayamis Castle north of Van and roadsides in the area; between Tatvan and Hizan.
<i>Lathyrus inconspicuus</i>	11km east of Kucuksu on the south Van circular, also Akdamar Island

<i>Lathyrus nissolia</i>	Oak scrub slopes a little west of Resadiye on the south Van circular
<i>Lathyrus pratensis</i>	The walls of the Aras Valley 16km west of Tuzluca on the Kars road and near Bolukyazi en route to Bitlis. In leaf in
<i>Lathyrus roseus</i>	Oak scrub slopes a little west of Resadiye on the south Van circular. Scapose, violet
<i>Lathyrus rotundifolius</i>	Noted on the south Van circular. Bitlis Circuit
<i>Lathyrus setifolius</i>	Bitlis Circuit
<i>Lathyrus tuberosus</i>	Oak woodlands near Bolukyazi en route to Bitlis 2009
<i>Lotus corniculatus</i>	Widespread
<i>Lotus pedunculatus</i>	[2006 - near Dogubeyazit]
<i>Medicago lupulina</i>	2km west of Taslicay, east of Agri; Above Ishak Pa <sup>a</sup>
<i>Medicago medicaginoides</i>	Also known as Trigonella arcuata. Salt mine at Tuzluca
<i>Medicago minima</i>	Oak scrub slopes a little west of Resadiye on the south Van circular. Van Kalesi?
<i>Medicago monantha</i>	Nominate. Marly slopes at east end of Zerne Reservoir on the Hosap road, and environs of Ayamis Castle north of Van and roadsides in the area
<i>Medicago orthoceras</i>	? Around Sim-er Hotel near Dogubeyazit, Meadows 14km east of Adilcevaz
<i>Medicago polymorpha</i>	1km east of Kucuksu on the south Van circular
<i>Medicago radiata</i>	Ahlat
<i>Medicago rigidula</i>	Ahlat
<i>Medicago sativa</i>	Nominate. Scattered
<i>Medicago x varia</i>	Tendurek
<i>Melilotus altissima</i>	2005 ?probably this species along roadsides etc.
<i>Onobrychis atropatana</i>	2005. East of Ercek. Also another unidentified
<i>Onobrychis cornuta</i>	Widespread. Crag and slopes south of the Sim-er Hotel, Dogubeyazit and on the south side of Kurubas Pass, south of v
<i>Onobrychis galegifolia</i>	Environs of Ayamis Castle north of Van and roadsides in the area
<i>Onobrychis radiata</i>	10km east of Ercek Golu and then shales 6km south along minor road and 2km or so south of the Kurubas Pass south of Van; between Hosap and Guzeldere Pass. Very pretty!
<i>Onobrychis spp</i>	2005. East of Ercek. Also another unidentified species seen in the area
<i>Onobrychis sulphureus</i>	
<i>vanensis</i>	2005. Another stunning species. Zerne
<i>Pisum sativum elatius</i>	Subspecies East side of the Cilli Pass, Ararat
<i>Robinia pseudacacia</i>	2005 Scattered as a planted tree

<i>Securigera orientalis</i> ( <i>Coronilla</i> )	11km east of Kucuksu on the south Van circular, in the ravine on the Bitlis to Bolukyazi road, and 2km or so south of the Kurubas Pass south of Van. Adilcevaz – by the road! 2009
<i>Coronilla varia</i>	Roadsides
<i>Sophora alopecuroides</i>	Roadsides in the Aras Valley. Edremit area near Van. 2009
<i>Trifolium arvense</i>	south of the harbour for Akdamar ferry. Zernek.
<i>Trifolium campestre</i>	Near Sarikum between Ahlat and Tatvan
<i>Trofolium formosum</i>	Bitlis circuit
<i>Trifolium hybridum</i>	Scattered throughout
<i>Trifolium nigrescens</i> <i>Subspecies petrisavii</i>	. Terraces at west edge of Dogruyol village near Bitlis ID as <i>Trifolium pilulare</i> on the tour. Terraces at west edge of Dogruyol village near Bitlis
<i>Trifolium pauciflorum</i>	ID as <i>Trifolium arvense</i> on the tour. Near Sarikum between Ahlat and Tatvan, and in terraces at west edge of Dogruyol village near Bitlis
<i>Trifolium phleoides</i>	
<i>Trifolium physodes</i>	Hill above Tugkoyu Village southeast of Tatvan; south of the harbour for Akdamar ferry. Bitlis Circuit.
<i>Trifolium pratense</i>	Scattered throughout
<i>Trifolium repens</i>	between Tatvan and Hizan.
<i>Trifolium resupinatum</i>	Near Sarikum between Ahlat and Tatvan and in oak scrub slopes a little west of Resadiye on the south Van circular. Bitlis Circuit.
<i>Trifolium speciosum</i>	Purple-flowered species. Oak woodlands near Kucuksu
<i>Trifolium tomentosum</i>	between Tatvan and Hizan.
<i>Trigonella caerulea</i>	Meadows 14km east of Adilcevaz, Roadsides near the hotel at Ahlat. Also near Hosap. The blue fenugreek
<i>Trigonella velutina</i>	2km or so south of the Kurubas Pass south of Van and campsite near the ferry to Akdamar Island, Gevas. Cilli Pass.
<i>Vicia anatolica</i>	Near the Sim-er Motel
<i>Vicia balansae</i>	scattered
<i>Vicia canescens</i> <i>Subspecies variegata</i> .	East side of the Guzeldere Pass between Hosap and Baskale. Also north of Van. Like an astragalus.
<i>Vicia cappadocica</i>	Environs of Ayamis Castle north of Van and roadsides in the area
<i>Vicia cassia</i>	Bitlis circuit
<i>Vicia cracca</i> ssp. <i>stenophyllus</i>	between Tatvan and Hizan.
<i>Vicia dalmatica</i>	Akdamar Island
<i>Vicia ervilia</i>	Roadsides near the hotel at Ahlat, Akdamar Island 2009

<i>Vicia grandiflora</i>	East side of the Cilli Pass, Ararat
<i>Vicia hyrcanica</i>	Balaban forest
<i>Vicia michauxii</i>	Near Resadiye, South Van Circular. Near Bendimahi, Van
<i>Vicia peregrina</i>	Balaban forest
<i>Vicia raflige</i>	[2006 - this pretty species was on marls around Zerneke and along the Çatak road]
<i>Vicia sativa</i>	Bitlis circuit
<i>Vicia tetrasperma</i>	Akdamar Island
<i>Vicia trunculata</i>	Seen in Oak woodlands near Yassaca near Resadiye on South Van circular. Cilli Pass 2009
<i>Vicia villosa subsp. villosa</i>	Common throughout
<b>Fagaceae</b>	
<i>Quercus brantii</i>	Sason
<i>Quercus libani</i>	Var pinnata. Oak woodland and grazed valley west of Dogruyol near Bitlis; On the road to Çatak. Subspecies pinnatiloba. 11km east of Kucukusu on the south Van circular, Terraces at west edge of Dogruyol village near Bitlis
<i>Quercus petraea</i>	
<i>Quercus pubescens</i>	Inside Nemrut Dagi Volcano crater
<b>Ficaceae</b>	
<i>Ficus carica</i>	Subspecies rupestris. 2005 Çatak Road
<b>Fumariaceae</b>	
<i>Corydalis nariniana</i>	Guzeldere Pass. Spur almost straight.
<i>Corydalis oppositifolia</i>	Nemrut Dagi crater and also on the east side of Kuskunkiran Pass and on the south face of Tendürek
<i>Subspecies kurdica</i>	
<i>Fumaria asepala</i>	Scattered throughout
<i>Fumaria microcarpa</i>	In the Aras Valley 15km west of Tuzluca
<i>Fumaria officinalis</i>	Cilli Pass west of Ararat
<i>Fumaria parviflora</i>	South of Van circular
<i>Fumaria vaillantii</i>	2004 Near Dogubeyazit
<b>Gentianaceae</b>	
<i>Gentiana cruciata</i>	2005 in leaf meadows along the south side of Lake Van
<i>Gentiana olivieri</i>	The walls of the Aras Valley 16km west of Tuzluca on the Kars road. Also Kizkunkiran Pass
<i>Gentiana verna</i>	Subspecies pontica..Guzeldere Pass and Tendurek Pass
<i>Swertia longifolia</i>	In leaf by the stream on the east side of the Guzeldere Pass
<b>Geraniaceae</b>	

<i>Biebersteinia multifida</i>	This is the strange foetid-leaved plant found by Rodney found with the Iris sari on the Çatak Road south of Van. Tuberos foetid herb with narrow bipinnatifid leaves and 5 pale yellow laciniate petals. Little known in Turkey 2009
<i>Erodium absinthoides</i> ssp. <i>armenum</i>	Cilli Pass, Ararat and also Aras Valley walls 16km past Tuzluca, north-facing slope of Tendurek Pass
<i>Erodium cicutarium</i>	Roadsides 1km east of Kucuksu, Van circular
<i>Geranium collinum</i>	North-facing slopes of Tendurek Pass
<i>Geranium molle</i>	between Tatvan and Hizan. Akdamar.
<i>Geranium pratensis</i> Subspecies <i>kurdicum</i>	. 2005. Along South side of Lake Van
<i>Geranium pyreniacum</i>	South side of Lake Van
<i>Geranium rotundifolium</i>	Akdamar Island; South of Van circular. Bitlis Circuit 2009
<i>Geranium stepporum</i>	Widespread on steppes
<i>Geranium tuberosum</i>	Widespread in the north
<i>Geranium tuberosum/stepporum</i>	Cilli Pass, Ararat. Intermediate between two species?

### **Globulariaceae**

<i>Globularia orientalis</i>	in the crater of Nemrut; between Tatvan and Hizan 11km east of Kucuksu on the south Van circular, and oak scrub slopes a little west of Resadiye on the south Van circular
<i>Globularia trichosantha</i>	

### **Guttiferae**

<i>Hypericum linaroides</i>	Nemrut Crater
<i>Hypericum lydium</i>	11km south of Kucuksu, Tatvan; On the road to Çatak.
<i>Hypericum helianthemoides</i>	? East end of Zerneke Baraji, near Hosap
<i>Hypericum scabrum</i>	Widespread
<i>Hypericum spectabilis</i>	Leaves only, Bitlis circuit

### **Juglandaceae**

<i>Juglans regia</i>	Cultivated in valleys around Dogruyol near Bitlis and in Çatak valley
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### **Labiatae**

<i>Acinos arvensis</i>	2005 East of Ercek Golu
<i>Acinos rotundifolius</i>	Widespread in steppe. The walls of the Aras Valley 16km west of Tuzluca on the Kars road, and the south-facing lower slopes of Nemrut Dagi Volcano
<i>Ajuga chamaepitys</i> Subspecies <i>?chia.</i>	Widespread. South-facing lower slopes of Nemrut Dagi Volcano. Tendurek Pass

<i>Eremostachys laciniata</i>	The walls of the Aras Valley 16km west of Tuzluca on the Kars road, the ravine on the Bitlis to Bolukyazi road, and the Muradiye Waterfall area
<i>Eremostachys moluccelloides</i>	Marly slopes at east end of Zernek Reservoir on the Hosap road
<i>Hymenocrater bituminosus</i>	The walls of the Aras Valley 16km west of Tuzluca on the Kars road, and the marly slopes at east end of Zernek Reservoir on the Hosap road. A small shrub with blue flowers within lime coloured bracts.
<i>Lallemantia canescens</i>	Between Hosap and Guzeldere Pass. East of Ercek
<i>Lallemantia iberica</i>	The walls of the Aras Valley 16km west of Tuzluca on the Kars road as well as between Van-Muradiye-Dogubayazit.
<i>Lallemantia peltata</i>	Quite common north of Lake Van
<i>Lamium album</i>	Scattered – often in disturbed habitats
<i>Lamium amplexicaule</i>	Near Tuzluca and oak woodland and grazed valley west of Dogruyol near Bitlis; on south slopes of Tendürek Pass; between Hosap and Guzeldere Pass.
<i>Lamium garganicum</i>	Ravine on the Bitlis to Bolukyazi road, and the Muradiye Waterfall area; On the road to Çatak. 2009
<i>Lamium rotundifolium</i>	above Ishak Pa'a Palace, Dogubayazit – in leaf
<i>Molucella laevis</i>	Between Hosap and Guzeldere Pass
<i>Nepeta betonicifolia</i>	Kuzgunkiran Pass
<i>Nepeta congesta</i>	? The walls of the Aras Valley 16km west of Tuzluca on the Kars road, the marly slopes at east end of Zernek Reservoir on the Hosap road, and the environs of Ayamis Castle north of Van and roadsides in the area
<i>Nepeta fissa</i>	The walls of the Aras Valley 16km west of Tuzluca on the Kars road, and 2km or so south of the Kurubas Pass south of Van
<i>Nepeta heliotropifolia</i>	10km east of Ercek Golu and then shales 6km south along minor road. Between Van and Bendimahi. Zernek.
<i>Nepeta meyeri</i>	Crags and slopes south of Sim-er Hotel, Dogubeyazit; south slopes of Tendürek Pass
<i>Nepeta transcaucasica</i>	Southwest shore of Ercek Golu, and 10km east of Ercek Golu and then shales 6km south along minor road; On the road to Çatak.
<i>Phlomis armeniaca</i>	2km or so south of the Kurubas Pass south of Van and near Ayamis Castle north of Van. Zernek.2009
<i>Salvia aethiopsis</i>	Widespread especially in the north
<i>Salvia atropatana</i>	? 2km or so south of the Kurubas Pass south of Van. Leaves linear, flowers later

<i>Salvia brachyantha</i>	South side of Kurubas Pass, south of Van. Calyx violet. Corolla only 12mm; between Hosap and Guzeldere Pass.
<i>Salvia caespitosa</i>	Tendürek Pass
<i>Salvia ceratophylla</i>	Between Ercek Lake and Ozalp; between Hosap and Guzeldere Pass.
<i>Salvia frigida</i>	Between Hosap and Guzeldere Pass. 2km or so south of the Kurubas Pass south of Van. Calyx wide open, glabrous and whitish green; dry hills near Hosap. Çatak Road.
<i>Salvia kronenburgii</i>	Environs of Ayamis Castle north of Van and roadsides in the area (EP). Corolla white with pale yellow lower lip. 25mm.
<i>Salvia limbata</i>	East side of the Guzeldere Pass between Hosap and Baskale by the road and Muradiye Waterfall area. Corolla white
<i>Salvia microstegia</i>	Muradiye Waterfall area, and oak scrub slopes a little west of Resadiye on the south Van circular. Calyx wide open, purplish violet, corolla 18mm
<i>Salvia multicaulis</i>	Hillsides 3km east of Tuzluca. Corolla purple, 10-12mm. Bracts purple 5-10mm. Çatak Road 2009
<i>Salvia nemorosa</i>	2005 noted at Muradiye and at Zerne
<i>Salvia poculata</i>	Meteor
<i>Salvia rosifolia</i>	[2006 – Sim-er Motel, Dogubeyazit]
<i>Salvia stamineum</i>	Tendürek Pass
<i>Salvia sufruticosa</i>	Terraces at west edge of Dogruyol village near Bitlis. 2003 on the road to Çatak. 2009
<i>Salvia trichoclada</i>	? Muradiye Waterfall area. South of Lake Van. 2009
<i>Salvia verticillata</i> Subspecies <i>amaniensis</i>	
<i>Scutellaria megalaspis</i> ???	Bitlis circuit
<i>Scutellaria orientalis</i> Subspecies <i>pinnatifida</i> . In ravine near Bolukyazi near Bitlis. Tendurek Pass 2009	
<i>Scutellaria orientalis</i> Subspecies <i>sosnowskyi</i> .	The walls of the Aras Valley 16km west of Tuzluca on the Kars road, and the south side of Kurubas Pass, south of Van.
<i>Scutellaria orientalis</i> Subspecies <i>virens</i> .	11km east of Kucuksu on the south Van circular. Nominate. Hillsides 3km east of Tuzluca, Squamulate; Between Hosap and Guzeldere Pass
<i>Sideritis montana</i>	
<i>Stachys annua</i>	between Tatvan and Hizan
<i>Stachys annua</i> var. <i>lycaonica</i>	is on Çatak road 2009
<i>Stachys iberica</i>	Subspecies <i>stenostachya</i> . Muradiye Waterfall area 2009
<i>Stachys inflata</i>	Meteor

<i>Stachys lavandulifolia</i>	Widespread in steppe 2009
<i>Stachys macrantha</i>	on north slopes of Tendürek Pass
<i>Teucrium chaemedrys</i> ssp. <i>sinuatum</i>	Zernek
<i>Teucrium polium</i>	Akdamar Island ? Craggs and slopes south of the Sim-er Hotel, Dogubeyazit; Between Hosap and Guzeldere Pass. Ercek area.
<i>Thymus kotschyanus</i>	
<i>Thymus sipyleus</i>	2004 above the Ishak Pa'a Palace
<i>Ziziphora capitata</i>	On the road to Çatak. 2009 ? Fields in Aras Valley near Calpala west of Igdir, and 10km east of Ercek Golu and shales 6km south along minor road.
<i>Ziziphora persica</i>	

### **Linaceae**

<i>Linum austriacum</i>	Common in Dogubeyazit area
<i>Linum densiflorum</i>	[The large white flowered species along the Çatak road]
<i>Linum flavum</i>	Ahlat
<i>Linum hirsutum</i>	2005 large blue flowers. Ishak Pa'a Between Hosap and Guzeldere Pass; On the road to Çatak
<i>Linum meletonis</i>	Oak woodlands near Resadiye on the Van circular and 2km below the Kurubas Pass south of Van; in the crater of Nemrut.
<i>Linum mucronatum</i> Subspecies <i>armenum</i>	? Cilli Pass on Ararat and 11km east of Kucuksu, near Tatvan
<i>Linum nervosum</i>	
<i>Linum pycnophyllum</i> ? Subspecies <i>kurdicum</i>	? Kurubas Pass south of Van and west of Dogubeyazit
<i>Linum trinervium</i>	Nemrut

### **Malvaceae**

<i>Alcea kurdica</i>	Bitlis circuit
<i>Malva neglecta</i>	Scattered in steppe. Between Tuzluca and Igdir; between Ercek Lake and Ozalp. Akdamar Island.

### **Oleaceae**

<i>Fraxinus angustifolia</i>	between Tatvan and Hizan; On the road to Çatak.
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### **Orobanchaceae**

<i>Orobanche anatolica</i>	Fairly widespread. On Salvia
<i>Orobanche bungeana</i>	2005 Zernek
<i>Orobanche caesia</i>	Zernek Valley
<i>Orobanche caryophyllacea</i>	2005 abundant in rough fields at the north end of the Çatak Road. Purple one seen in steppe south of Kurubas Pass, south of Van, Cili Pass
<i>Orobanche cernua</i>	
<i>Orobanche cilicica</i>	[2006 Muradiye Waterfall]
<i>Orobanche crenata</i>	[2006 Cilli Pass.]
<i>Orobanche kurdica</i>	Çatak Road



<i>Orobanche lutea</i>	2005. East of Ercek Golu
<i>Orobanche purpurea</i>	Fairly widespread. On Achillea
<i>Orobanche ramosa</i>	Akdamar Island. Zerne. 2009
<i>Orobanche schultzi</i>	? 2km or so south of the Kurubas Pass south of Van
<i>Phelypaea coccinea</i>	Karabel Road, differs from below species by having hairless calyx.
<i>Phelypaea tournefortii</i>	Muradiye Waterfall area; above Ishak Pasa Palace, Dogubayazit.
<b>Paeoniaceae</b>	
<i>Paeonia mascula</i>	Flowering in Aspen Woodland and scrub above the village of Tugkoyu
<b>Papaveraceae</b>	
<i>Glaucium corniculatum</i>	Aras Valley. Zerne
<i>Glaucium grandiflorum</i>	Zerne
<i>Hypocoum pendulum</i>	Scattered localities around Van
<i>Papaver arenarium</i>	Çili Pass
<i>Papaver argemone</i>	Ishakpasa
<i>Papaver commutatum</i>	2004 Noted east of the Sim-er, Dogubeyazit – orchards in the next village
<i>Papaver dubium</i>	Subspecies laevigatum
<i>Papaver macrostomum</i>	Ercek Lake
	This taxon includes previously separate Papavers <i>fugax tauricola</i> and <i>acrochaetum</i> all of which were seen – the and <i>acrochaetum</i> all to the south and east of Van 2009 hairs. Noted in a variety of localities most at about lake level of which were seen – the and <i>acrochaetum</i> all of which were seen – the and <i>acrochaetum</i> all of which were seen – the
<i>Papaver persicum</i>	
<i>Papaver pseud-orientale</i>	Muradiye Waterfall – side valley – in bud; above Ishak Pa <sup>a</sup> Palace, Dogubayazit. 2005 only in leaf
<i>Papaver rhoeas</i>	Weeds on fields.
<i>Roemeria hybrida</i>	Purple. Few in flower by the Van-Agri-Dogubeyazit road junction; between Ercek Lake and Ozalp. Çatak Road
<i>Roemeria refracta</i>	Bright red. Widespread around Van
<b>Plantaginaceae</b>	
<i>Plantago atrata</i>	North-facing slopes on the Tendurek Pass
<i>Plantago lanceolata</i>	Widespread on meadows and disturbed habitats. Guzeldere Pass
<i>Plantago major</i>	2005! Somewhere!
<b>Plumbaginaceae</b>	
<i>Acantholimon bracteatum</i>	. 2005 East of Ercek Golu, Çavuştepe
<i>Subspecies capitulum</i>	
<i>Limniopsis davisii</i>	2005 Çatak Road

## **Polygalaceae**

- Polygala alpestris* 2005 well out of range but clearly this species on the Cilli Pass.
- Polygala anatolica* 11km south of Kucuksu, south of Tatvan; between Van-Muradiye-Dogubayazit; between Tatvan and Hizan.
- Polygala hohenbekeriana* Tendurek Pass

## **Polygonaceae**

- Atraphaxis billardieri* Zernek valley
- Polygonum alpinum* on north slopes of Tendürek Pass.
- Polygonum cognatum* Between Dogruyol and Bolukyazi, near Bitlis 2009
- Polygonum aviculare* Between Ercis and Ahlat
- Polygonum polycnemoides* Tatvan area
- Polygonum amphibium* 2005 Zernek  
East end of Zernek Baraji and also shales east of ercek Golu. This was also the 'rhubarb'-like thing being sold in local markets!
- Rheum ribes*
- Rumex acetosa* Çili Pass
- Rumex acetosella* Widespread on disturbed habitats.  
Ravine near Bolukyazi, Bitlis & at Muradiye Waterfall; South of Van circular.
- Rumex scutatus*
- Rumex angustifolius* 11km south of Kucuksu
- Rumex crispus* Meadows 1km east of Kucuksu

## **Primulaceae**

- Androsace albana* Short stemmed species with pink flowers Tendurek Pass  
East side of the Cilli Pass, Ararat and on the Kuskunkiran Pass on the south Van circular, also above the Ishak Pa'a Palace, Dogubeyazit 2009
- Androsace maxima*
- Androsace villosa* Rugged hills above the Ishak Pa'a Palace by Dogubeyazit and the slopes above and south of the Guzeldere Pass between Hosap and Baskale 2009  
East shore of Arin Golu near Adilcevaz and the meadows 14km east of Adilcevaz
- Glaux maritima*
- Primula algida* Between Hosap and Guzeldere Pass  
Soguksu meadows south of Tendurek Pass, the east side of the Guzeldere Pass between Hosap and Baskale, and a little east of Asaginarlica below the Karabet Pass
- Primula auriculata*
- Primula elatior ssp. meyerii* Leaves seen on Tendurek Pass

## **Pteridophyta**

- Ceterach officinarum* Limestone cliffs on Akdamar Island
- Cheilanthes persica* in the crater of Nemrut. Along the Çatak Road
- Cystopteris fragilis* Brittle Bladder Fern. Scattered throughout

*Equisetum arvense* south face of Tendürek Pass; Between Hosap and Guzeldere Pass.  
*Equisetum palustris* meadows between Tatvan and Hizan. 2009  
*Equisetum ramossissimum* Between Van and Dogubeyazit

## **Ranunculaceae**

*Adonis aestivalis* Between Van and Muradiye; On the road to Çatak. Fields around Dogubeyazit

*Adonis eriocalycina* Slopes by campsite near Akdamar Ferry and also near Ayamis Castle; On the road to Çatak. Ercek Golu area.

*Adonis flammea* Widespread. A local farmer told us he used it to make an infusion 'to keep cancer at bay'

*Adonis wolgensis* Noted on the ridge above the Ishak Pa<sup>o</sup>a and also as common on the lower north-facing slopes of the Tendurek Pass near Somkaya village

*Anemone (Pulsatilla) albana* On the crater rim of Nemrut Dagi and at Tendürek Pass.

*Anemone narcissiflora*  
*Subspecies willdenowii* . A little to the north of Tendurek Pass. Güzeldere Pass

*Ceratocephalus testiculatus* Less common than following species – e.g. Arin Golu

*Ceratocephalus falcatus* Common especially in north

*Clematis orientalis* Noted 3km east of Tuzluca. 2005 leaves only – Çatak Road

*Consolida orientalis* Quite common in fallow or disturbed ground in the Aras Valley. Also near Edremit and at Van Kalesi

*Nigella segetalis* ? 2006 - Fields near Gevas]

*Ranunculus arvensis* Scattered throughout in fields and waysides

*Ranunculus brachylobus*  
*subsp. incisilobatus* Kuskuniran Pass – just on the east side as well as Tendürek Pass. In the crater of Nemrut; between Hosap and Guzeldere Pass.

*Ranunculus bulbiferus* Has bulbils in the axils of the stem leaves. Tripartite or trisect leaves, sepals spreading. Described as recently as 1992 as being new to Turkey – from Van area. Top of the Kizkunkiran Pass

*Ranunculus constantinopolitanus* Wet meadows along the Van circular south side.

*Ranunculus crateris* 2005. Noted between Van and Bendimahi – very distinctive leaves

*Ranunculus cuneatus* First noted around the Sim-er and as quite common in dry areas north of Lake Van

*Ranunculus dissectus* Subsp.  
*glabrescens* Ishakpasa

*Ranunculus dissectus* Subsp.  
*huetii* On the road to Karabet Pass and between Van and Bendimahi

*Ranunculus diversifolius* The tall large-leaved buttercup in the woodlands south of Lake Van 2009

<i>Ranunculus fenzlii</i>	Another tall large-leaved buttercup in the woodlands south of Lake Van!
<i>Ranunculus grandiflorus</i>	Both sides of Tendurek Pass in saturated ground 2009
<i>Ranunculus illyricus</i>	The Cilli Pass west of Ararat; in the crater of Nemrut.
<i>Ranunculus isthmicus</i>	north of Van, fruits like a clown's hat 2009
<i>Ranunculus kochii</i>	By snowmelt at many localities – like a squat celandine! 2009
<i>Ranunculus kotschyi</i>	Wet meadows east of Agri and Nemrut Dagi Crater – locally common 2009
<i>Ranunculus myosuroides</i>	2005 just coming into flower on the Karabet Pass
<i>Ranunculus oxyspermus</i>	Tendurek and Tatvan
<i>Ranunculus poluninii</i>	2005. Karabet Pass – just coming into flower
<i>Ranunculus polyanthemos</i>	between Tatvan and Hizan; between Hosap and Guzeldere Pass 2009
<i>Ranunculus polyrhizos</i>	On the ridgetop south of the Guzeldere Pass. Near top of Tendurek Pass
<i>Ranunculus repens</i>	Noted near Igdır and near Bolukyazi. Scattered in wet areas around Van.
<i>Ranunculus sceleratus</i>	Wetlands at base of Mount Ararat in several localities and also seen in wet meadows near Adilcevaz 2009
<i>Ranunculus sericeus</i>	Wet meadows near Bendimahi and along south shore of Lake Van 2009
<i>Ranunculus sphaerospermus</i>	A water crowfoot. Roadside ditches just outside Dogubeyazit 2009
<i>Ranunculus trichophyllus</i>	Bitlis circuit
<i>Ranunculus vanensis</i>	South of Van circular – top of Kizkinkiran Pass
<i>Thalictrum flavum</i>	Riversides and wet areas south of Lake Van 2009
<i>Thalictrum isopyroides</i>	Scattered in mountains south of Lake Van. Flowering at 2750m at this season 2009
<i>Thalictrum minus</i>	shaley slopes between Ercek & Ozalp, above Ishak Pa'a Palace & many other places 2009
<i>Thalictrum sultanabadence</i>	Karabel and Catak
<i>Trollius ranunculinus</i>	A few plants on the Guzeldere Pass east of Hosap. 2005 only leaves seen. A few in flower 2009
<b>Resedaceae</b>	
<i>Reseda lutea</i>	Scattered on steppe and disturbed habitats.
<b>Rhamnaceae</b>	
<i>Rhamnus pallasii</i>	in the crater of Nemrut; between Tatvan and Hizan; On the road to Çatak. Meteor
<b>Rosaceae</b>	
<i>Agrimonia eupatoria</i>	Oak woodland and grazed valley west of Dogruyol near Bitlis
<i>Alchamilla erithoperta</i>	scattered 2009
<i>Amygdalus orientalis</i>	North of Van

<i>Amygdalus trichamygdalis</i>	[2006 - Cilli Pass]
<i>Cotoneaster integerrimus</i>	Crags and slopes south of the Sim-er Hotel, Dogubeyazit
<i>Cotoneaster nummularia</i>	in the crater of Nemrut.; South of Van circular 2009
<i>Crataegus aronia</i>	2005 Cilli Pass
<i>Crataegus curvisepala</i>	Bitlis Circuit
<i>Crataegus meyeri</i>	Near Bolukyazi
<i>Crataegus monogyna</i>	South of Van circular.
<i>Crataegus orientalis</i>	Hill above Tugkoyu Village southeast of Tatvan. Leaves only
<i>Filipendula ulmaria</i>	2005 Oak Woodlands south side of Lake Van 2009
<i>Filipendula vulgaris</i>	2005 Oak Woodlands south side of Lake Van
<i>Geum urbanum</i>	Oak woodland and grazed valley west of Dogruyol near Bitlis
<i>Malus sylvestris</i> Subsp.	
<i>orientalis</i>	v. <i>orientalis</i> . South of Van circular. 2009
<i>Potentilla anservina??/</i>	<b>Kurubas?</b>
<i>Potentilla bifurca</i>	Muradiye Waterfall area. Zernek. Ercek. 2009
<i>Potentilla lignosa</i>	On the road to Karabet Pass. Çatak Road
<i>Potentilla orientalis</i>	2005 Çatak Road
<i>Potentilla recta</i>	Erçek Lake
	10km east of Ercek Golu and then shales 6km south along minor road and 2km or so south of the Kurubas Pass south of Van; between Hosap and Guzeldere Pass. Very pretty!
<i>Potentilla supina</i>	
<i>Prunus (Cerasus) prostrata</i>	South of Van circular. Karabet. 2009
	( <i>Cerasus</i> ) Oak scrub slopes a little west of Resadiye on the south Van circular, and a little east of Asaginarlica below the Karabet Pass.
<i>Prunus brachypetala</i>	11km east of Kucuksu on the south Van circular; in the crater of Nemrut.
<i>Prunus divaricata</i>	( <i>Cerasus angustifolia</i> ) Crags and slopes south of the Sim-er Hotel, Dogubeyazit; on Pamuk Dagi between Dogubayezit and Igdir. Strange looking plant that only vaguely resembles a cherry!
<i>Prunus incana</i> Var. <i>sintenisii</i> .	
<i>Pyrus amygdaliformis</i>	[2006 - Bitlis Circuit] 2009
<i>Pyrus syriaca</i> Subsp. <i>syriaca</i> .	Oak scrub slopes a little west of Resadiye on the south Van circular. Leaves only. 2009
<i>Rosa canina</i>	2005 Oak Woodlands south side of Lake Van 2009
<i>Rosa foetida</i>	scattered
<i>Rosa haemisphaerica</i>	[2006 ?probably this species - Cilli Pass]
<i>Rosa heckeliana</i> Var.	
<i>heckeliana</i> .	2005 Small shrubs above Ishak Pa <sup>o</sup> a and Cilli Pass
<i>Rubus sanctus</i>	between Tatvan and Hizan.

<i>Sanguisorba minor</i>	Picnic site near Calpala in the Aras Valley; widespread in meadows. 2009
<i>Sorbus persica</i>	2004 South Circular Woods
<i>Sorbus torminalis</i>	Hill above Tugkoyu Village southeast of Tatvan. . Oak scrub slopes a little west of Resadiye on the south Van circular. Leaves only. Var cretica. Near Bolukyazi near Bitlis 2009
<i>Sorbus umbellata</i> Var. <i>taurica</i>	
<b>Rubiaceae</b>	
<i>Asperula arvensis</i>	Crags and slopes south of the Sim-er Hotel, Dogubeyazit 2009
<i>Asperula glomerata</i>	Subspecies ?eriantha Crags and slopes south of the Sim-er Hotel, Dogubeyazit, also on terraces at west edge of Dogruyol village near Bitlis
<i>Asperula orientalis</i>	
<i>Asperula setosa</i>	Oak scrub slopes a little west of Resadiye on the south Van circular, and also on the Kuskunkiran Pass on the south Van circular. East of Ercek Golu
<i>Asperula xylorrhiza</i>	Ravine on the Bitlis to Bolukyazi road
<i>Callipeltis cucullaria</i>	Hillsides 3km east of Tuzluca and the marly slopes at east end of Zerne Reservoir on the Hosap road
<i>Cruciata taurica</i>	Common throughout – <i>Cruciata laevipes</i> almost certainly present too? 2009
<i>Galium aparine</i>	Scattered near habitation especially
<i>Galium czerepanovii</i>	Crags and slopes south of the Sim-er Hotel, Dogubeyazit
<i>Galium incanum</i>	Subspecies <i>elatius</i> . Oak scrub slopes a little west of Resadiye on the south Van circular 2009
<i>Galium spurium</i>	Nominate. 2km west of Taslicay, east of Agri, and in fields in Aras Valley near Calpala west of Igdir
<i>Galium verum</i>	Scattered
<i>Menyanthes trifoliata</i>	Adilcevaz 2009
<b>Rutaceae</b>	
<i>Haplophyllum schelkovnikovii</i>	? Near Ayamis Castle; west of Van Lake, on slopes of Nemrut.
<b>Santalaceae</b>	
<i>Thesium billardieri</i>	Muradiye Waterfall area; above Ishak Pa'a Palace, Dogubayazit.
<i>Thesium impressum</i>	Aras Valley north of Tuzluca. Muradiye.
<b>Saxifragaceae</b>	
<i>Saxifraga cymbalaria</i>	2005 spring half way along the South Van Circular 2009
<i>Saxifraga hederacea</i>	By stream through oak woodland near Bolukyazi near Bitlis

*Saxifraga kotschyi* Rugged hills above the Ishak Pa<sup>o</sup>a Palace by Dogubeyazit though the bright orange petals seem a little odd! The eastern approach to the Karabet Pass and on the pass itself some superb specimens 2009

*Saxifraga sibirica* Ravine on the Bitlis to Bolukyazi road; in the crater of Nemrut. Tendurek Pass

## **Scrophulariaceae**

*Bungea trifida* Scattered on steppe. Craggs and slopes south of the Sim-er Hotel, Dogubeyazit, and 10km east of Ercek Golu and then shales 6km south along minor road. Zerneq. Meteor

*Dodartia orientalis* Fallow fields near Igdir in the Aras Valley

*Euphrasia juzepczukii* 2005 Cilli Pass

*Euphrasia pectinata* Scattered  
2km west of Taslicay, east of Agri, and the rugged hills above the Ishak Pa<sup>o</sup>a Palace by Dogubeyazit; On the road to Çatak. 2009

*Lagotis stolonifera* The walls of the Aras Valley 16km west of Tuzluca on the Kars road. Zerneq.

*Linaria armeniaca*

*Linaria chalepensis* Oak woodland and grazed valley west of Dogruyol near Bitlis; Between Hosap and Guzeldere Pass. Cilli Pass, Ararat. Muradiye. 2009

*Linaria genistifolia* Near Tatvan

*Linaria genistifolia* *Subspecies confertifolia* at Zerneq. 2005

*Linaria genistifolia* *Subspecies prealti* east of Ercek Golu

*Linaria kurdica* Near Tatvan

*Linaria grandiflora* Catak Road

*Linaria simplex* East side of the Cilli Pass, Ararat  
. Oak woodland and grazed valley west of Dogruyol near Bitlis. Cilli Pass, Ararat. As the subspecies name suggest it is yellow flowered!

*Parentucellia latifolia* *Subspecies flaviflora*

*Pedicularis caucasica* Meadows in the Kucuksu area. Tendurek Pass  
Widespread and common – both wet meadow and dry rocky slope forms 2009

*Pedicularis comosa*

*Pedicularis condensata* Between Hosap and Guzeldere Pass

*Rhinanthus angustifolius* *Subspecies grandiflorus* . 2km west of Taslicay, east of Agri, and 11km east of Kucuksu on the south Van circular. Zerneq. 2009

*Scrophularia ilwensis* Between Hosap and Guzeldere Pass.

*Scrophularia libanotica* Van Castle

<i>Scrophularia nachitschevanica</i>	Crags and slopes south of the Sim-er Hotel, Dogubeyazit – on screes. An intermediate between this and the following species was found on rocks here too; Tendürek Pass.
<i>Scrophularia orientalis</i>	2005 Tendurek Pass
<i>Scrophularia rivanum</i>	By Ayamis Castle north of Van Environs of campsite 1km towards Gevas from Akdamar ferry and at the wetland justside Ahlat. In leaf in 2005
<i>Scrophularia umbrosa</i>	
<i>Verbascum macrocarpum</i>	? near Tatvan
<i>Verbascum phoeniceum</i>	The walls of the Aras Valley 16km west of Tuzluca on the Kars road. Cilli Pass
<i>Verbascum suworowianum</i>	10km east of Ercek Golu and then shales 6km south along minor road.
<i>Verbascum vanense</i>	? Muradiye Waterfall area
<i>Veronica anagallis-aquatica</i>	? Aras Valley near Calpala west of Igdir; On the road to Çatak. Adilcevaz 2009
<i>Veronica anagalloides</i>	Bitlis Circuit
<i>Veronica biloba</i>	East side of the Cilli Pass, Ararat, the Ishak Pa'â Palace above Dogubeyazit, and the Kuskunkiran Pass on the south Van circular
<i>Veronica bornmuelleri</i>	? 2km or so south of the Kurubas Pass south of Van 1km east of Kucuksu on the south Van circular, and roadsides near the hotel at Ahlat as well as the Muradiye Waterfall area
<i>Veronica bozakmanii</i>	
<i>Veronica gentianoides</i>	North-facing slopes on the Tendurek Pass 2009
<i>Veronica intercedens</i>	Oak woodland and grazed valley west of Dogruyol near Bitlis
<i>Veronica orientalis</i>	Scattered throughout 2009
<i>Veronica polita</i>	11km east of Kucuksu on the south Van circular
<i>Veronica pusillus</i>	Caldiran
<b>Solanaceae</b>	
<i>Hyoscyamus niger</i>	Ishak Pa'â Palace above Dogubeyazit and Muradiye Waterfall; in the crater of Nemrut; between Ercek Lake and Ozalp. 2009
<i>Hyoscyamus pusillus</i>	West side of lava plain north of Dogubeyazit, and the salt mine at Tuzluca Muradiye Waterfall area, the roadsides near the hotel at Ahlat, and Bendimahi Marshes at NE corner of Lake Van 2009
<i>Hyoscyamus reticulatus</i>	
<i>Lycium ruthenicum</i>	Van Castle
<b>Tamaricaceae</b>	
<i>Myricaria germanica</i>	Seen along the river east of Agri and near Hosap 2009
<b>Thymelaeaceae</b>	
<i>Daphne oleoides</i>	Subspecies <i>kurdica</i> . In flower at Oak scrub slopes a



	little west of Resadiye on the south Van circular. 2009
<i>Daphne mucronata</i>	In leaf only. Oak scrub slopes a little west of Resadiye on the south Van circular 2009
<b>Ulmaceae</b>	
<i>Celtis glabrata</i>	Bitlis Circuit
<i>Celtis tournefortii</i>	Terraces at west edge of Dogruyol village near Bitlis; in the crater of Nemrut.
<i>Ulmus minor</i>	subspecies minor. in the crater of Nemrut. Between Van and Muradiye 2009
<b>Urticaceae</b>	
<i>Parietaria judaica</i>	On the road to Çatak; On the road to Karabet Pass. East of Ercek Golu 2009 A narrow-leaved stingless form at Meadows 14km east of Adilcevaz was shown to us by a local who gathered it to use as a vegetable and as an 'anti-cancer' herb – this form approached what we call <i>Urtica galeopsifolia</i> in the UK 2009
<i>Urtica dioica</i>	
<b>Violaceae</b>	
<i>Viola arvensis</i>	Cilli Pass west of Ararat
<i>Viola kitaibeliana</i>	in the crater of Nemrut. Tendurek Pass. Cilli Pass. 2009
<i>Viola modesta</i>	Scattered in rocky areas in the north
<i>Viola occulta</i>	Roadsides near Taslicay east of Agri. Cilli Pass
<i>Viola sieheana</i>	between Dogubayezit and Ahlat. Tendurek Pass.
<b>Violaceae</b>	
<i>Viola arvensis</i>	Cilli Pass west of Ararat
<b>Zygophyllaceae</b>	
<i>Peganum harmala</i>	Widespread on steppe, Van Kalesi; Between Hosap and Guzeldere Pass. 2009
<i>Tribulis terrestris</i>	Steppe near Hosap
<i>Zygophyllum fabago</i>	Hosap and Van Kalesi 2009
<b>Monocotyledons</b>	
<b>Alismataceae</b>	
<i>Alisma lanceolatum</i>	East shore of Ercek Golu; between Tatvan and Hizan. 2005 in leaf only 2009
<i>Alisma plantago-aquatica</i>	2005 on the Bitlis Circuit
<b>Amaryllidaceae</b>	
<i>Ixiolirion tataricum</i> Subspecies <i>montanum</i>	Widespread in steppe
<b>Araceae</b>	
<i>Arum</i> ( <i>conophalloides</i> )	<i>detruncatum</i> Oak scrub slopes a little west of Resadiye on the south Van circular, also 10km east of Ercek Golu and then shales 6km south along minor road and in the ravine at Çatak- Karabet-Van road junction. 2005 sadly didn't check the plants at Muradiye? 2009
<b>Butomaceae</b>	

*Butomus umbellatus*

East shore of Ercek Golu and also at Bendimahi. By Van Kalesi

## **Iridaceae**

*Crocus cancellatus*

Brian Matthew confirmed that the single bulb collected from the hillside where *Iris sari* was prolific along the Çatak Road was this autumn-flowering species

*Gladiolus atroviolaceus*

East side of the Cilli Pass, Ararat, and 2km or so south of the Kurubas Pass south of Van; between Ercek Lake and Ozalp. Also east of Hosap.

*Gladiolus kotschyanus*

Muradiye Waterfall area and around Ayamis Castle. Also several places south and east of Lake Van

*Iris barnumae*

10km east of Ercek Golu and then shales 6km south along minor road. On the road to Ercis on dry hillsides, c. 30 km from Van, 1730 m altitude. East of Ozalp, particularly in the military area.

*Iris urmiensis*

2006 - this stunning sulphur form was common in the steppe near Albayrak

*Iris caucasica*

Rugged hills above the Ishak Pa'a Palace by Dogubeyazit; Tendürek Pass and inside Nemrut Dagi Volcano crater; On the road to Karabet Pass.

*Iris gatesii*

very good clumps seen at Sason

*Iris iberica*

Subspecies *elegantissima*. 10km west of Dogubeyazit on Agri road. Also below the crags and on the slopes south of the Sim-er Hotel, Dogubeyazit, as well as around the hotel itself. Also on the east side of the Cilli Pass, Ararat, and in the Muradiye Waterfall area.

*Iris paradoxa*

Forma choschab. South side of Kurubas Pass, south of Van, the approach to the Guzeldere Pass, and the road between Zerneke and Lake Van. Also noted along the roadsides along the Zerneke Reservoir. Also on the road to Çatak 2009

*Iris persica*

Plants in seed noted on the Bitlis circuit

*Iris pseudocaucasica*

Just a few plants in flower on a ridge above our picnic site on the slopes above and south of the Guzeldere Pass between Hosap and Baskale, and a few on the eastern approaches to the Karabet Pass; dry hills east of Ozalp (in seed there). In seed in

*Iris sari*

Steppe and fields 16km south of road 975 on the Çatak road and fields around the village of Kay(r?)abogaz a little south of there; south of the harbour for Akdamar ferry. A large colony of mixed colours on the Çatak Road had several plants intermediate (hybrids?) between this species and *Iris paradoxa*? A single plant also seen in flower north of Dogruyol in the Bitlis area.

*Iris spuria*  
*musulmanica*

Subspecies . Bendimahi Marshes at NE corner of Lake Van; between Ercek Golu and Ozalp – not yet in flower

## **Juncaginaceae**

<i>Triglochin maritima</i>	Soguksu meadows south of Tendurek Pass, the meadows 14km east of Adilcevaz and 1km east of Kucuksu on the south Van circular; Between Hosap and Guzeldere Pass. Ercek Golu 2009
<i>Triglochin palustris</i>	Meadows 14km east of Adilcevaz and 1km east of Kucuksu on the south Van Circular. Ercek Golu 2009

## **Liliaceae**

<i>Allium akaka</i>	Rugged hills above the Ishak Pa'aa Palace by Dogubeyazit, also the south side of Kurubas Pass, south of Van and 2km or so south of the Kurubas Pass south of Van and at Ayamis Castle.
<i>Allium atrovioleaceum</i>	Near Adilcevaz
<i>Allium chrysantherum</i>	Çavuştepe and Erçek Lake
<i>Allium dictyoprasum</i>	Between Hosap and Guzeldere Pass.
<i>Allium hirtifolium</i>	Van Castle and a variety of south Van locations
<i>Allium pseudoampeloprasum</i>	? Muradiye Waterfall area. Note the perianth segments are smooth and obtuse – may be another species?
<i>Allium scabriscapum</i>	Between Hosap and Guzeldere Pass; Kurubas Pass; south of the harbour for Akdamar ferry.
<i>Allium scorodoprasum</i>	Subspecies <i>waldsteinii</i> . Akdamar Island
<i>Asparagus officinalis</i>	Noted on the first visit to Muradiye Waterfall. Cilli Pass
<i>Asparagus palaestinus</i>	Zernek
<i>Asparagus persicus</i>	Rugged hills above the Ishak Pa'aa Palace by Dogubeyazit.
<i>Bellevalia fominii</i>	10km east of Ercek Golu and then shales 6km south along minor road and the eastern approach to the Karabet Pass. Also Çatak Road and oak woodlands
<i>Bellevalia longipes</i>	North of Van (in frt) Generally quite common in the Van area – e.g. Kuskunkiran Pass on the south Van circular and the eastern approach to the Karabet Pass
<i>Bellevalia longistyla</i>	
<i>Bellevalia paradoxa</i>	(including <i>Bellevalia pycnantha</i> ) North-facing slopes near snowline on the Tendurek Pass, the east side of the Guzeldere Pass between Hosap and Baskale, and the eastern approach to the Karabet Pass
<i>Bellevalia rixii</i>	Slopes above and south of the Guzeldere Pass between Hosap and Baskale 2009
<i>Colchicum kotschyana</i>	On the road to Çatak. (in leaf – autumn-flowering)
<i>Colchicum szovitsii</i>	Slopes above and south of the Guzeldere Pass between Hosap and Baskale; Kurubas Pass. Tendurek Pass
<i>Eremurus spectabilis</i>	Scattered at lower levels to the south and east of Lake Van 2009

<i>Fritillaria alburyana</i>	On north facing slopes of ravine northwest of Muradiye Waterfall – a single dried-up flower found! 2003 only found in seed. 2004 dried up plants on Tendurek may have been this species
<i>Fritillaria assyriaca</i>	Inside Nemrut Dagi Volcano crater, Tendurek
<i>Fritillaria caucasica</i>	Tendürek Pass.
<i>Fritillaria crassifolia</i>	kurdica x pinardii, Several on the Tendurek Pass appeared to be intergrades between these two species
<i>Fritillaria crassifolia</i>	East side of the Guzeldere Pass between Hosap and Baskale, and the eastern approach to the Karabet Pass.
<i>Fritillaria crassifolia</i> Subspecies 'kurdica'	and possibly 'crassifolia ' involved though practical delimitation of these subspecies seems impossible in this area. The form seen on the Tendurek Pass which superficially looks like <i>Fritillaria michailovskyi</i> is subspecies kurdica probably of the form grossheimiana described from Iran some years ago. 2009
<i>Fritillaria minima</i>	The eastern approach to the Karabet Pass. Several thousand in flower this year – a very rare fritillary known from only three or four sites 2009
<i>Fritillaria minuta</i>	Inside Nemrut Dagi Volcano crater, also on the east side of the Kiskunkiran Pass south van circular, and above Yukarinarlica on the Karabet Pass 2009
<i>Fritillaria minuta x assyriaca</i>	Nemrut Dagi. Very common hybrid and very easy to 'pick' with bright glossy green leaves and narrow slightly waisted flowers
<i>Fritillaria pinardii</i>	North-facing slopes on the Tendurek Pass. The status of plants in Nemrut Dagi Volcano is unclear though possibly this species is not present there 2009
<i>Fritillaria straussii</i>	Oak scrub slopes a little west of Resadiye on the south Van circular – in fruit
<i>Gagea bohémica</i>	Nemrut Dagi crater lip and Karabet Pass
<i>Gagea bulbifera</i>	Rugged hills above the Ishak Pa <sup>o</sup> a Palace by Dogubeyazit, by the Hosap Fortress, and on the eastern approach to the Karabet Pass; in the crater of Nemrut.
<i>Gagea confusa</i>	Lip of Nemrut Dagi Volcano crater. Karabet Pass. Also by lava fields at Tendurek Pass
<i>Gagea fistulosa</i>	Widespread and common near snowmelt everywhere 2009
<i>Gagea gageoides</i>	Rugged hills above the Ishak Pa <sup>o</sup> a Palace by Dogubeyazit, the Kuskunkiran Pass on the south Van circular, hills above Ercek and the eastern approach to the Karabet Pass. First gorge along the Çatak Road
<i>Gagea glacialis</i>	The eastern approach to the Karabet Pass; in the crater of Nemrut. Also on Tendurek 2009

<i>Gagea helenae</i>	The eastern approach to the Karabet Pass; Between Hosap and Guzeldere Pass.
<i>Gagea luteoides</i>	in the crater of Nemrut; South of Van circular. Karabet Pass 2009
<i>Gagea stylosa</i>	Tendürek Pass.
<i>Gagea taurica</i>	in the crater of Nemrut and on Tendurek Pass. Above Ishak Pa <sup>o</sup> a. Also on the Karabet Pass 2009
<i>Gagea tenera</i>	2005 Nemrut Dagi and Karabet Pass
<i>Gagea uliginosa</i>	Nemrut Dagi crater and Karabet Pass 2009
<i>Gagea villosa</i>	Rugged hills above the Ishak Pa <sup>o</sup> a Palace by Dogubeyazit 2009
<i>Hyacinthella longipes</i>	Kurubas Pass.
<i>Hyacinthella siirtensis</i>	Above Ishak Pa <sup>o</sup> a Palace, Dogubayazit.
<i>Merendera kurdica</i>	The eastern approach to the Karabet Pass 2009
<i>Merendera trigyna</i>	North-facing slopes near snowline on the Tendurek Pass, and the slopes above and south of the Guzeldere Pass between Hosap and Baskale. The plants from the Tendurek Pass fit the form 'raddeana' with wide perianth segments and broad leaves.2009
<i>Muradiye Waterfall area</i>	
<i>Muscari armeniacum</i>	Locally common throughout 2009
<i>Muscari aucheri</i>	2km west of Taslicay, east of Agri, and the eastern approach to the Karabet Pass. Also Nemrut Dagi and Guzeldere
<i>Muscari caucasicum</i>	Widespread – much commoner than previous species 2009
<i>Muscari coeleste</i>	In very damp meadows just north of Dogubeyazit and near Ishak Pa <sup>o</sup> a Palace – one of the 'open-flowered' Bellevalia
<i>Muscari comosum</i>	Scattered 2009
<i>Muscari longipes</i>	Kurubas Pass; On the road to Karabet Pass. Çatak Road 2009
<i>Muscari neglectum</i>	Above Ishak Pa <sup>o</sup> a Palace, Dogubayazit. East of Ercek Golu.
<i>Ornithogalum arcuatum</i>	2005 along the south shore of Lake Van in fields
<i>Ornithogalum montanum</i>	? Rugged hills above the Ishak Pa <sup>o</sup> a Palace by Dogubeyazit. Probably not montanum but certainly looked like it!
<i>Ornithogalum narbonense</i>	Akdamar and Çatak Road
<i>Ornithogalum oligophyllum</i>	Scattered throughout 2009
<i>Ornithogalum orthophyllum</i>	10km east of Ercek Golu and then shales 6km south along minor road
<i>Ornithogalum platyphyllum</i>	2km or so south of the Kurubas Pass south of Van. Bitlis Circuit
<i>Ornithogalum shelkovnikovii</i>	Widespread 2009
<i>Ornithogalum wiedemannii</i>	Or oligophyllum

<i>Puschkinia</i>	'nemrut dagi' A doubtfully distinct 'Puschkinia' rather uncommon in the crater floor 2009
<i>Puschkinia bilginerii</i>	'karabet' Grows with 'scilloides' but much the commoner of the two – pyramidal inflorescence, different filament structure etc. 2009
<i>Puschkinia scilloides</i>	North-facing slopes on the Tendurek Pass, the east side of the Guzeldere Pass between Hosap and Baskale, and the eastern approach to the Karabet Pass – locally very abundant at all these sites 2009
<i>Scilla monanthos</i>	Above the Ishak Pa <sup>o</sup> a Palace
<i>Scilla sibirica</i>	Above the Ishak Pa <sup>o</sup> a Palace
<i>Tulipa armena</i>	Subsp. armena Tendurek Pass, above Ishak Pasa
<i>Tulipa biflora</i>	Slopes above and south of the Guzeldere Pass between Hosap and Baskale. Both white with yellow centre and fully yellow forms
<i>Tulipa humilis</i>	East side of the Guzeldere Pass between Hosap and Baskale, the slopes above and south of the Guzeldere Pass between Hosap and Baskale, and the eastern approach to the Karabet Pass. 2009
<i>Tulipa julia</i>	Crags and slopes south of the Sim-er Hotel, Dogubeyazit and on the rugged hills above the Ishak Pa <sup>o</sup> a Palace by Dogubeyazit. 2009
<i>Tulipa sintenisii</i>	Recently finished plants were seen south of Bolukyazi. A large colony in good flower by the end of the first gorge on the road to Çatak, very good colony seen at Çatak 2009
<i>Tulipa sylvestris</i>	Between Hosap and Guzeldere Pass.
<b>Orcidaceae</b>	
<i>Anacamptis pyramidalis</i>	Oak scrub slopes a little west of Resadiye on the south Van circular – mostly in bud. Several at the little roadside wood west of Geva <sup>o</sup> 11km east of Kucuksu on the south Van circular, the hill above Tugkoyu Village southeast of Tatvan, and on oak scrub slopes a little west of Resadiye on the south Van circular 2009
<i>Cephalanthera kotschyana</i>	
<i>Cephalanthera longifolia</i>	In scrub above the South Van Circular near Resadiye 11km east of Kucuksu on the south Van circular. 2006
<i>Coeloglossum viride</i>	on the Guzeldere Pass
<i>Comperia comperiana</i>	Many found in oak scrub slopes near Tatvan.
<i>Dactylorhiza flavescens</i>	Inside Nemrut Dagı Volcano crater. Oak woods on South Van Circular 2009
<i>Dactylorhiza iberica</i>	2005 very many in bud in marshy fields on the west wide of the Kizkunkiran Pass.
<i>Dactylorhiza incarnata</i>	between Erçis and Ahlat.

<i>Dactylorhiza osmanica</i>	A large population south of Bendimahi was a surprise! Widespread in wet meadows. The very tall plants with densely leafy stems and elongate bracts from the wet meadows near Adilcevaz fit the form 'longibracteata'. Strangely this highly distinctive form appears nowhere in Kreutz's work! The 'chuhuensis' form with purple-marked leaves and bracts was seen north of Lake Van. 2009
<i>Dactylorhiza umbrosa</i>	In leaf at Adilcevaz and above Tugkoyu Village southeast of Tatvan
<i>Epipactis helleborine</i>	
<i>Epipactis persica</i>	In leaf above Tugkoyu Village southeast of Tatvan
<i>Ophrys holoserica</i>	Bitlis Circuit near village Igecit 2009
<i>Ophrys mammosa</i>	Near Tatvan
<i>Ophrys phrygia</i>	North of Kuslu (north of Bolukyazi)
<i>Ophrys straussii</i>	Noted in a little roadside wood west of Geva <sup>o</sup>
	Nominate. Akdamar Island. One or two in good flower in oak scrub on the south Van circular. Several at the little roadside wood west of Geva <sup>o</sup> 2009
<i>Ophrys transhyrcana</i>	
	The walls of the Aras Valley 16km west of Tuzluca on the Kars road, oak woodland and grazed valley west of Dogruyol near Bitlis, and in the Selcuk Cemetery at Ahlat. Road to Çatak. Quite common in some marshy fields south of Lake Van. 2009
<i>Orchis coriophora</i>	
<i>Orchis palustris</i>	East shore of Ercek Golu; ?between Ercis and Ahlat. 2009
<i>Orchis pinetorum</i>	Inside Nemrut Dagi Volcano crater, and 11km east of Kucuksu on the south Van circular 2009
<i>Orchis pseudolaxiflora</i>	Very good population seen at Ercek Lake 11km east of Kucuksu on the south Van circular, and on oak scrub slopes a little west of Resadiye on the south Van circular 2009
<i>Orchis tridentata</i>	
<i>Platanthera chlorantha</i>	Hill above Tugkoyu Village southeast of Tatvan

### **Cyperaceae**

<i>Blysmus compressus</i>	East shore of Arin Golu near Adilcevaz
<i>Blysmus compressus</i>	Carex divulsa
<i>Bolboschoenus maritimus</i>	Subspecies leersii
<i>Carex acutiformis</i>	East shore of Ercek Golu 2009
<i>Carex diluta</i>	Meadows at Adilcevaz
	? Junction of the Van-Agri-Dogubeyazit roads
<i>Carex distans</i>	1km east of Kucuksu on the south Van circular 2009
<i>Carex divisa</i>	Widespread
<i>Carex flacca</i> <i>Subspecies</i>	
<i>serratula</i>	. 1km east of Kucuksu on the south Van circular

*Carex orbicularis* Subspecies  
*?kotschyana* . 2km or so south of the Kurubas

*Carex otrubae* Bitlis circuit

*Carex panicea* 1km east of Kucuksu on the south Van circular, and a little east of Asaginarlica below the Karabet Pass

*Carex tomentosa* 1km east of Kucuksu on the south Van circular

Pass south of Van *Carex kurdica*

*Scirpiodes holoschoenus* Scattered

### **Juncaceae**

*Eleocharis uniglumis* Meadows 14km east of Adilcevaz 2009

*Juncus effusus* East shore of Ercek Golu etc 2009

*Juncus gerardi* East shore of Arin Golu near Adilcevaz and meadows  
14km east of Adilcevaz

### **Poaceae**

*Aegilops cylindrica* Scattered throughout 2009

*Aegilops triuncialis* Roadsides near the hotel at Ahlat etc

*Agropyron cristatum* Subspecies pectinatum

*Alopecurus arundinaceus* ? Aras Valley near Calpala west of Igdir and meadows  
14km east of Adilcevaz

*Alopecurus aucheri* Lip of Nemrut Dagi Volcano crater

*Alopecurus laguroides* Rugged hills above the Ishak Pa<sup>o</sup>a Palace by  
Dogubeyazit 2009

*Alopecurus myosuroides* Near Ulu Kumbet at Ahlat

*Bromus lanceolatus* ? Roadsides near the hotel at Ahlat, Van Castle

*Bromus tectorum* Scattered

*Bromus tomentellus* Scattered

*Catabrosa capusii* ? Muradiye Waterfall area

*Catabrosella parviflora* Subspecies calvertii

*Dactylis glomerata* Near Edremit 2009

*Eremopoa songarica* Scattered

*Eremopyrum distans* ? Environs of Ayamis Castle north of Van and  
roadsides in the area

*Festuca callieri* Nominated. Crags and slopes south of the Sim-er Hotel,  
Dogubeyazit

*Festuca sclerophylla* East side of the Guzeldere Pass between Hosap and  
Baskale

*Hordeum geniculatum* Bendimahi Marshes at NE corner of Lake Van

*Hordeum murinum* Subspecies ?glaucum

*Hordeum violaceum* Bendimahi Marshes at NE corner of Lake Van 2009

*Melica persica* Subspecies cf. inaequiglumis



<i>Milium vernale</i>	Oak woodland and grazed valley west of Dogruyol. New to
<i>Phleum alpinum</i>	On Tendürek Pass
<i>Poa bulbosa</i>	Widespread – the commonest grass. Fertile specimens at Inside Nemrut crater
<i>Psathyrostachys fragilis</i>	Crags and slopes south of the Sim-er Hotel, Dogubeyazit
<i>Puccinellia distans</i>	Subspecies <i>sevangensis</i> Reservoir on the Hosap road
<i>Sclerochloa dura</i>	Van Castle
<i>Sesleria phleoides</i>	Rugged hills above the Ishak Pa'aa Palace by Dogubeyazit and east side of the Guzeldere Pass between Hosap and Baskale
<i>Stipa arabica</i>	Erçek Lake
<i>Stipa holosericea</i>	Environs of Ayamis Castle north of Van and roadsides in the area
<i>Taeniatherum caput-medusae</i>	Subspecies <i>crinitum</i>
<i>Triticum baeoticum</i>	Subspecies ? <i>thaoudar</i>
<i>Ventenata subenervis</i>	Hill above Tugkoyu Village southeast of Tatvan. New to East Turkey
<i>Vulpia ciliata</i>	Nominate. Roadsides near the hotel at Ahlat
<i>Zingeria pisdica</i>	Oak woodland and grazed valley west of Dogruyol near Bitlis
<b>Typhaceae</b>	
<i>Typha angustifolia</i>	2004. Adilcevaz 2008
<i>Typha latifolia</i>	2004. Ahlat area
<i>Typha minima</i>	Hillsides 3km east of Tuzluca

## Systematic List Number 2      Birds

The taxonomy and order of the following list largely follows Voous (1977, List of Recent Holarctic Bird Species).

<b>Little grebe</b>	<i>Tachybaptus ruficollis</i>	Scattered records, mostly heard only.
<b>Great crested grebe</b>	<i>Podiceps cristatus</i>	Dörümeç rivermouth and South Van marshes.
<b>Black-necked grebe</b>	<i>Podiceps nigricollis</i>	Erçek Gölü.
<b>[Eurasian bittern]</b>	<i>Botaurus stellaris</i>	Heard at the Sim-er Hotel wetland on the second visit. One at Dörümeç rivermouth.
<b>Night heron</b>	<i>Nycticorax nycticorax</i>	Small numbers at the South Lake Van lunch spot, Dörümeç rivermouth and South Van marshes. Also one at Akdamar Island.
<b>Squacco heron</b>	<i>Ardeola ralloides</i>	Small numbers at Sim-er Hotel wetland and South Van Marshes.
<b>Cattle egret</b>	<i>Bubulcus ibis</i>	Three at Erçek Gölü and another three at the Dörümeç rivermouth. All in breeding plumage.
<b>Little egret</b>	<i>Egretta garzetta</i>	Small numbers at Dörümeç rivermouth and South Van marshes. One at Akdamar Island.
<b>Grey heron</b>	<i>Ardea cinerea</i>	Small numbers at most wetlands visited.
<b>Purple heron</b>	<i>Ardea purpurea</i>	Small numbers at Göldüzü, Dörümeç rivermouth and South Van marshes.
<b>White stork</b>	<i>Ciconia ciconia</i>	First seen the the Sim-er Hotel wetland. Small numbers thereafter on five dates.
<b>Spoonbill</b>	<i>Platalea leucorodia</i>	Six at the Sim-er Hotel wetland on both visits.
<b>Greater flamingo</b>	<i>Phoenicopterus ruber</i>	A small flock at Dörümeç rivermouth on both visits. One at South Van Marshes and at least 2000 at Erçek Gölü the same day.
<b>Ruddy shelduck</b>	<i>Tadorna ferruginea</i>	Sim-er Hotel wetland, Dörümeç rivermouth and South Van marshes. Two flew by Akdamar Island.
<b>Shelduck</b>	<i>Tadorna tadorna</i>	South Van marshes, Dörümeç rivermouth and Erçek Gölü.
<b>Gadwall</b>	<i>Anas strepera</i>	One male at the Sim-er Hotel wetland. Some along the lakeshore near Ahlat and a few at Dörümeç rivermouth.
<b>Mallard</b>	<i>Anas platyrhynchos</i>	First recorded at the Sim-er Hotel wetland and recorded on four dates thereafter.
<b>Garganey</b>	<i>Anas querquedula</i>	One male at the Sim-er Hotel wetland. Two there the next day. Small numbers at Dörümeç rivermouth and South Van marshes.
<b>Shoveler</b>	<i>Anas clypeata</i>	A few at the Sim-er Hotel wetland and the Dörümeç rivermouth.
<b>Red-crested pochard</b>	<i>Netta rufina</i>	Good numbers at Göldüzü. Also recorded at the Dörümeç rivermouth and South Van marshes.
<b>Pochard</b>	<i>Aythya ferina</i>	One male at the Sim-er Hotel wetland. Abundant at Göldüzü. Small numbers at the Dörümeç rivermouth and South Van marshes.
<b>Ferruginous duck</b>	<i>Aythya nyroca</i>	Two or three at the Sim-er Hotel wetland on the last morning there. One at the Dörümeç rivermouth.
<b>Tufted duck</b>	<i>Aythya fuligula</i>	Single male at Göldüzü.

<b>White-headed duck</b>	<i>Oxyura leucocephala</i>	At least 35 at Göldüzü. Single males at Dörümeç rivermouth and South Van marshes. At least 15 at Erçek Gölü.
<b>Honey buzzard</b>	<i>Pernis apivorus</i>	Six migrating north on the first day.
<b>Lammergier</b>	<i>Gypaetus barbatus</i>	One over the Güzeldere Geçidi.
<b>Egyptian vulture</b>	<i>Neophron percnopterus</i>	One at Zerneç.
<b>Marsh harrier</b>	<i>Circus aeruginosus</i>	Sim-er Hotel wetland and noted in small numbers at most wetlands thereafter.
<b>Montagu's harrier</b>	<i>Circus pygargus</i>	Second-year male at the Sim-er Hotel wetland. A female there the next morning.
<b>Sparrowhawk</b>	<i>Accipiter nisus</i>	Single female along 'Komper Ridge' (South Lake Van).
<b>Common buzzard</b>	<i>Buteo buteo</i>	Singles at the Tatvan hotel and South Lake Van area on the same day.
<b>Long-legged buzzard</b>	<i>Buteo rufinus</i>	Small numbers on most days.
<b>Booted eagle</b>	<i>Hieraaetus pennatus</i>	Single pale phase bird at Nemrut Dağı.
<b>Golden eagle</b>	<i>Aquila chrysaetos</i>	Two above the Ishak Paşa palace.
<b>Lesser kestrel</b>	<i>Falco naumanni</i>	At least four on Akdamar Island.
<b>Common kestrel</b>	<i>Falco tinnunculus</i>	Scattered records, recorded on eight dates.
<b>Hobby</b>	<i>Falco subbuteo</i>	A few including; Bitlis circuit (3) and Van (2). Recorded on four dates.
<b>Lanner</b>	<i>Falco biarmicus</i>	At least three immature birds over Akdamar Island on the last day.
<b>Chukar</b>	<i>Alectoris chukar</i>	Several above the Ishak Paşa palace. A calling bird at the Karabet lunch spot. One heard at Güzeldere Geçidi.
<b>Quail</b>	<i>Coturnix coturnix</i>	Joan flushed a beauty off 'Komper Ridge' (South Lake Van). Heard in the Çatak Valley and around Erçek Gölü.
<b>[Water rail]</b>	<i>Rallus aquaticus</i>	Heard in the reeds at the Bendimahi bridge and the Dörümeç rivermouth.
<b>Moorhen</b>	<i>Gallinula chloropus</i>	Heard at the Bendimahi bridge. Small numbers thereafter.
<b>Coot</b>	<i>Fulica atra</i>	Sim-er Hotel wetland and all other large wetlands thereafter.
<b>Common crane</b>	<i>Grus grus</i>	A pair at the Sim-er Hotel wetland on the second visit.
<b>Black-winged stilt</b>	<i>Himantopus himantopus</i>	First noted at Sim-er Hotel wetland and frequent on wetlands thereafter.
<b>Avocet</b>	<i>Recurvirostra avosetta</i>	Recorded at Sim-er Hotel wetland, Dörümeç rivermouth and South Van marshes
<b>Little ringed plover</b>	<i>Charadrius dubius</i>	A few at South Van marshes and Erçek Gölü.
<b>Ringed plover</b>	<i>Charadrius hiaticula</i>	A few at the Sim-er Hotel wetland on the second visit.
<b>Kentish plover</b>	<i>Charadrius alexandrinus</i>	Breeding pairs at South Van marshes and Erçek Gölü.
<b>Grey plover</b>	<i>Pluvialis squatarola</i>	Single at the Sim-er Hotel wetland on the second visit.
<b>Spur-winged plover</b>	<i>Hoplopterus spinosus</i>	Pair at Dörümeç rivermouth.
<b>Lapwing</b>	<i>Vanellus vanellus</i>	widespread.
<b>Little stint</b>	<i>Calidris minuta</i>	Small flock at the Sim-er Hotel wetland on second visit.
<b>Ruff</b>	<i>Philomachus pugnax</i>	Sim-er Hotel wetland, Dörümeç rivermouth
<b>Common redshank</b>	<i>Tringa totanus</i>	widespread.
<b>Greenshank</b>	<i>Tringa nebularia</i>	One at the Sim-er Hotel wetland. Another at South Van marshes.
<b>Wood sandpiper</b>	<i>Tringa glareola</i>	One at the Dörümeç rivermouth.
<b>Common sandpiper</b>	<i>Actitis hypoleucos</i>	One along the river below the waterfall on the first day and another along the stream in the Güzeldere Pass.
<b>Mediterranean gull</b>	<i>Larus melanocephalus</i>	Small numbers at Göldüzü.

<b>Black-headed gull</b>	<i>Larus ridibundus</i>	Small numbers at Göldüzü and also at South Van marshes.
<b>Slender-billed gull</b>	<i>Larus genei</i>	Small numbers at South Van marshes.
<b>Yellow-legged gull</b>	<i>Larus cachinnans</i>	Istanbul.
<b>Armenian gull</b>	<i>Larus armenicus</i>	widespread, recorded in most wetlands visited.
<b>Common tern</b>	<i>Sterna hirundo</i>	South Van marshes.
<b>Little tern</b>	<i>Sterna albifrons</i>	Three or four at South Van marshes.
<b>Gull-billed tern</b>	<i>Sterna nilotica</i>	One at Sim-er Hotel wetland.
<b>Black tern</b>	<i>Chlidonias niger</i>	One at Dörümeç rivermouth.
<b>White-winged tern</b>	<i>Chlidonias leucopterus</i>	A few at the Sim-er Hotel wetland. One at Bendimahi bridge.
<b>Whiskered tern</b>	<i>Chlidonias hybridus</i>	Two briefly at the Sim-er Hotel wetland on the second visit.
<b>[Black-bellied sandgrouse]</b>	<i>Pterocles orientalis</i>	Heard at Erçek Gölü.
<b>Rock dove</b>	<i>Columba livia</i>	Ubiquitous.
<b>Woodpigeon</b>	<i>Columba palumbus</i>	Sim-er Hotel garden only.
<b>Collared dove</b>	<i>Streptopelia decaocto</i>	One at the Sim-er Hotel.
<b>Laughing dove</b>	<i>Streptopelia senegalensis</i>	Noted in towns on just two dates.
<b>Cuckoo</b>	<i>Cuculus canorus</i>	Seen or more usually heard on ten dates.
<b>Long-eared owl</b>	<i>Asio otus</i>	Seen well in the garden at the Sim-er Hotel every night.
<b>[Scops owl]</b>	<i>Otus scops</i>	Heard during the day on the Bitlis circuit.
<b>Little owl</b>	<i>Athene noctua</i>	One en route to Karabet Geçidi. A pair at South Van marshes.
<b>Common swift</b>	<i>Apus apus</i>	Widespread, recorded daily.
<b>Alpine swift</b>	<i>Apus melba</i>	Güzelsu and Akdamar Island.
<b>European bee-eater</b>	<i>Merops apiaster</i>	A few whilst driving on the first day but a huge flock of 120+ over the hotel garden at dusk. Thereafter seen daily in good numbers.
<b>Roller</b>	<i>Coracias garrulus</i>	Pair at Meteor. Another pair at the junction to Dörümeç rivermouth. Common around Van.
<b>Hoopoe</b>	<i>Upupa epops</i>	A single on the first day at the first stop was our first. Thereafter small numbers noted daily.
<b>[Wryneck]</b>	<i>Jynx torquilla</i>	One heard on the South Lake Van day.
<b>Syrian woodpecker</b>	<i>Dendrocopos syriacus</i>	Sim-er Hotel and small numbers on three dates thereafter.
<b>[Lesser spotted woodpecker]</b>	<i>Dendrocopos minor</i>	Heard at the Sim-er Hotel.
<b>Crested lark</b>	<i>Galerida cristata</i>	Occasional records, usually whilst driving.
<b>Woodlark</b>	<i>Lullula arborea</i>	Noted above the Ishak Paşa palace and at Çilli Pass. Abundant at Nemrut Dağı.
<b>Lesser short-toed lark</b>	<i>Calandrella rufescens</i>	Erçek Gölü.
<b>Calandra lark</b>	<i>Melanocorypha calandra</i>	Göldüzü.
<b>Bimaculated lark</b>	<i>Melanocorypha bimaculata</i>	Çilli Pass and Erçek Gölü.
<b>Skylark</b>	<i>Alauda arvensis</i>	Scattered records.
<b>Shore lark</b>	<i>Eremophila alpestris</i>	Noted in all alpine habitats (7 dates).
<b>Swallow</b>	<i>Hirundo rustica</i>	Widespread.
<b>Sand martin</b>	<i>Riparia riparia</i>	Common over the larger wetlands we visited.
<b>House martin</b>	<i>Delichon urbica</i>	Güzelsu.
<b>Tawny pipit</b>	<i>Anthus campestris</i>	Singles at Tendürek Pass and on four dates thereafter.
<b>Water pipit</b>	<i>Anthus spinoletta</i>	Tendürek and Güzeldere Passes.
<b>Black-headed wagtail</b>	<i>Motacilla flava</i>	Recorded on nine dates.
<b>Grey wagtail</b>	<i>Motacilla cinerea</i>	Recorded on three dates.

<b>White wagtail</b>	<i>Motacilla alba</i>	Scattered records.
<b>Radde's accentor</b>	<i>Prunella ocularis</i>	Common on Karabet Geçidi and Güzeldere Geçidi.
<b>[Rufous bush-chat]</b>	<i>Cercotrichas galactotes</i>	Heard in Çilli Pass.
<b>[Nightingale]</b>	<i>Luscinia megarhynchos</i>	Scattered records of singing birds.
<b>White-throated robin</b>	<i>Irania guttaralis</i>	Males encountered (often singing) at Çilli Pass, Nemrut Dağı and South Lake Van.
<b>Black redstart</b>	<i>Phoenicurus ochuros</i>	Scattered records, abundant above the Ishak Paşa palace.
<b>Stonechat</b>	<i>Saxicola torquata</i>	Three at Nemrut Dağı and two at Mezne. The eastern race <i>armenicus</i> .
<b>Northern wheatear</b>	<i>Oenanthe oenanthe</i>	widespread.
<b>Isabelline wheatear</b>	<i>Oenanthe isabellina</i>	widespread.
<b>Black-eared wheatear</b>	<i>Oenanthe hispanica</i>	Scattered records (6 dates).
<b>Finsch's wheatear</b>	<i>Oenanthe finschii</i>	At least two males in the lava fields we drove through en route to the wetland near the Sim-er Hotel one morning.
<b>Kurdish wheatear</b>	<i>Oenanthe xanthopyrmyna</i>	Also recorded at Çatak valley and Zerneke.
<b>Rock thrush</b>	<i>Monticola saxatilis</i>	Pair feeding young at the bottom of the Çatak valley.
<b>Blue rock thrush</b>	<i>Monticola solitarius</i>	Two males on the Tendürek Pass and another above the Ishak Paşa palace. Also recorded at Karabet Geçidi and Çatak valley.
<b>[Cetti's warbler]</b>	<i>Cettia cetti</i>	Single male at the bottom of the Çatak valley.
<b>Savi's warbler</b>	<i>Locustella luscinioides</i>	Heard at the waterfall on the first day and at the 'pearl mullet river' en route to Tatvan. Small numbers heard thereafter.
<b>Barred warbler</b>	<i>Sylvia nisoria</i>	Singing bird at Dörümeç rivermouth.
<b>Lesser whitethroat</b>	<i>Sylvia curruca</i>	One female on the first morning at the Sim-er Hotel and three there on the last morning.
<b>Whitethroat</b>	<i>Sylvia communis</i>	Nemrut Dağı.
<b>Garden warbler</b>	<i>Sylvia borin</i>	Migrants at the Sim-er Hotel and singing birds above Ishak Paşa.
<b>Blackcap</b>	<i>Sylvia atricapilla</i>	Good numbers of migrants at Sim-er Hotel.
<b>Marsh warbler</b>	<i>Acrocephalus palustris</i>	Singles daily at Sim-er Hotel.
<b>Sedge warbler</b>	<i>Acrocephalus schoenobaenus</i>	Sim-er Hotel. Singing birds in South Lake Van area and Çatak valley.
<b>Paddyfield warbler</b>	<i>Acrocephalus agricola</i>	Sim-er Hotel wetland, also singing and seen at Dörümeç rivermouth.
<b>Great reed warbler</b>	<i>Acrocephalus arundinaceus</i>	South Van marshes.
<b>Olivaceous warbler</b>	<i>Hippolais pallida</i>	Single in the garden at the Sim-er Hotel. Also Bendimahi, Göldüzü, Dörümeç rivermouth and South Van.
<b>Willow warbler</b>	<i>Phylloscopus trochilus</i>	Sim-er Hotel. Abundant in the poplars at Adilcevaz and small numbers thereafter.
<b>Spotted flycatcher</b>	<i>Muscicapa striata</i>	A few in the garden at the Sim-er Hotel.
<b>Red-breasted flycatcher</b>	<i>Ficedula parva</i>	Migrants in the trees at the waterfall on the first day and a few in the garden at the Sim-er Hotel.
<b>Bearded tit</b>	<i>Panurus biarmicus</i>	A female on the first morning at the Sim-er Hotel.
<b>Great tit</b>	<i>Parus major</i>	Two at the Bendimahi bridge. Abundant at Dörümeç rivermouth.
<b>Blue tit</b>	<i>Parus caeruleus</i>	Adilcevaz, Ahlat and Van.
<b>Western rock nuthatch</b>	<i>Sitta neumayer</i>	Bitlis circuit.
<b>Eastern rock nuthatch</b>	<i>Sitta tephronata</i>	Abundant above the Ishak Paşa. A few thereafter.
		Pair nesting inside the Meteor crater.

<b>Penduline tit</b>	<i>Remiz pendulinus</i>	One on the last morning at the Sim-er Hotel.
<b>Golden oriole</b>	<i>Oriolus oriolus</i>	Sim-er Hotel, Bitlis circuit and a few thereafter.
<b>Lesser grey shrike</b>	<i>Lanius minor</i>	At least three on the steppe at the back of the Sim-er Hotel on the first morning. Pair on the Bitlis circuit.
<b>Red-backed shrike</b>	<i>Lanius collurio</i>	One female at the waterfall on the first day. Abundant around the Sim-er Hotel on two of the days there.
<b>Jay</b>	<i>Garrulus glandarius</i>	Nemrut Dağı, Bitlis circuit.
<b>Magpie</b>	<i>Pica pica</i>	Widespread.
<b>Chough</b>	<i>Pyrhacorax pyrrhacorax</i>	Several above the Ishal Paşa palace.
<b>Jackdaw</b>	<i>Corvus monedula</i>	widespread.
<b>Rook</b>	<i>Corvus frugilegus</i>	widespread.
<b>Hooded crow</b>	<i>Corvus corone</i>	Widespread but in small numbers.
<b>Starling</b>	<i>Sturnus vulgaris</i>	widespread.
<b>Rose-coloured starling</b>	<i>Sturnus roseus</i>	Eight in the Çilli Pass from the van and another single in garden briefly at the Sim-er Hotel. At least 12 from 'Komper's Ridge'. Two at Dörümeç rivermouth. Two at Çatak valley.
<b>House sparrow</b>	<i>Passer domesticus</i>	Ubiquitous.
<b>Rock sparrow</b>	<i>Petronia petronia</i>	Ubiquitous.
<b>Snow finch</b>	<i>Montifringilla nivalis</i>	Tendürek Pass, Karabet Pass and Güzeldere Pass.
<b>Red-fronted serin</b>	<i>Serinus pusillus</i>	Seen well from the van at the Ishak Paşa picnic area.
<b>Goldfinch</b>	<i>Carduelis carduelis</i>	Two dates only.
<b>Linnet</b>	<i>Carduelis cannabina</i>	Small numbers in montane habitat.
<b>Hawfinch</b>	<i>Coccothraustes coccothraustes</i>	Two in the grounds of the Sim-er Hotel one afternoon were a surprise. One on the last morning there too.
<b>Common rosefinch</b>	<i>Carpodacus erythrinus</i>	First noted in the Sim-er Hotel grounds, where up to three daily.
<b>Crimson-winged finch</b>	<i>Rhodopechys sanguinea</i>	Pair flying by up the Çatak valley.
<b>Trumpeter finch</b>	<i>Bucantes githagineus</i>	Six or perhaps eight birds at Zerneç.
<b>Mongolian finch</b>	<i>Bucanetes mongolicus</i>	A pair at Zerneç.
<b>Rock bunting</b>	<i>Emberiza cia</i>	Birds feeding young in the nest above the Ishak Paşa palace. Also recorded on the Nemrut Dağı and the Bitlis circuit.
<b>Ortolan bunting</b>	<i>Emberiza hortulana</i>	Common and often surprisingly tame above the Ishak Paşa palace. Small numbers thereafter.
<b>Grey-necked bunting</b>	<i>Emberiza buchanani</i>	Two or three above the Ishak Paşa palace. Also recorded in the Çatak valley on two dates.
<b>Cinereous bunting</b>	<i>Emberiza cineracea</i>	An elusive singing male on the Bitlis circuit.
<b>Black-headed bunting</b>	<i>Emberiza melanocephala</i>	Several singing males on the first day and common in suitable habitat thereafter.
<b>Reed bunting</b>	<i>Emberiza schoeniclus</i>	Dörümeç rivermouth and South Van Marshes. The impressive large-billed eastern race <i>caspia</i> .
<b>Corn bunting</b>	<i>Miliaria calandra</i>	Widespread, mostly heard though.

### Systematic list No. 3      Odonata

<b>Banded demoiselle</b>	<i>Calopteryx splendens</i>	Bitlis circuit.
<b>Migrant spreadwing</b>	<i>Lestes barbarus</i>	Bitlis circuit and Erçek Gölü.
<b>Common winter damsel</b>	<i>Sympetma fusca</i>	Bitlis circuit (1) and Mezne (1).
<b>Common bluetail</b>	<i>Ischnura elegans</i>	Bendimahi bridge, Bitlis circuit, South Lake Van.
<b>Small bluetail</b>	<i>Ischnura pumilio</i>	Bitlis circuit.
<b>Common blue damselfly</b>	<i>Enallagma cyathigerum</i>	Only recorded around Lake Van, in the grounds of the hotel and at Akdamar.
<b>Ornate bluet</b>	<i>Coenagrion ornatum</i>	One at the first stop on day 1. Abundant on the Bitlis circuit. A few on the South Lake Van day and at Mezne.
<b>Crescent bluet</b>	<i>Coenagrion lunulatum</i>	Good numbers by the 'warm' lake in the Nemrut Dağı crater when the sun came out.
<b>Azure bluet</b>	<i>Coenagrion puella</i>	Bitlis circuit, South Van.
<b>Eastern spectre</b>	<i>Caliaeschna microstigma</i>	Two on the Bitlis circuit.
<b>Turkish goldenring</b>	<i>Cordulegaster picta</i>	One on the Bitlis circuit.
<b>Broad-bodied chaser</b>	<i>Libellula depressa</i>	One at the first stop on Day 1. Common on the Bitlis circuit and in South Van area.
<b>Four-spot chaser</b>	<i>Libellula quadrimaculata</i>	Good numbers by the 'warm' lake in the Nemrut Dağı crater. One on South Van day and a few thereafter.
<b>Broad scarlet</b>	<i>Crocothemis erythraea</i>	Bitlis circuit (1).
<b>Red-veined darter</b>	<i>Sympetrum fonscolombii</i>	Bitlis circuit.

## Systematic List Number 4      Butterflies

The taxonomic nomenclature and the systematic order have been taken from Baytaş's 'Butterflies of Turkey' (2007).

<b>Swallowtail</b>	<i>Papilio machaon</i>	Hill-topping individuals at 'Komper Ridge' (South Van).
<b>Clouded apollo</b>	<i>Parnassius mnemosyone</i>	One on 'Komper Ridge' (South Van).
<b>Black-veined white</b>	<i>Aporia craetegi</i>	South Lake Van.
<b>Eastern wood white</b>	<i>Leptidea duponcheli</i>	South Lake Van and Mezne.
<b>Large white</b>	<i>Pieris brassicae</i>	Scattered records.
<b>Mountain small white</b>	<i>Artogeia ergane</i>	South Lake Van and Mezne.
<b>Small white</b>	<i>Artogeia rapae</i>	Bitlis circuit and around Lake Van.
<b>Eastern dappled white</b>	<i>Euchloe ausonia</i>	A few around Lake Van.
<b>Clouded yellow</b>	<i>Colias crocea</i>	Bitlis circuit and frequent thereafter.
<b>Green hairstreak</b>	<i>Callophrys rubi</i>	Çilli Pass and Çatak valley.
<b>Romanoff's vernal copper</b>	<i>Tomares romanovi</i>	Çatak Valley (1).
<b>Balkan copper</b>	<i>Lycaena candens</i>	first day.
<b>Turkish fiery copper</b>	<i>Lycaena ochimus</i>	Noted on first day and a few thereafter.
<b>Lesser fiery copper</b>	<i>Lycaena thersamon</i>	Albayrak.
<b>Small copper</b>	<i>Lycaena phlaeas</i>	'Komper Ridge' (South Lake Van) and Akdamar Landing.
<b>Sooty copper</b>	<i>Lycaena tityrus</i>	first day.
<b>Osiris blue</b>	<i>Cupido osiris</i>	South Lake Van.
<b>Green-underside blue</b>	<i>Glaucopsyche alexis</i>	South Lake Van and occasional thereafter.
<b>Iolas blue</b>	<i>Glaucopsyche iolas</i>	South Lake Van.
<b>Lesser chequered blue</b>	<i>Pseudophilotes vicrama</i>	Çatak Valley.
<b>Silver-studded blue</b>	<i>Plebeius argus</i>	recorded.
<b>Zephyr blue</b>	<i>Plebeius pylaon</i>	Çilli Pass, South Lake Van.
<b>Brown argus</b>	<i>Aricia agestis</i>	recorded.
<b>Blue argus</b>	<i>Aricia anteros</i>	Çilli Pass, Bitlis circuit.
<b>Pontic blue</b>	<i>Polyommatus coelestinus</i>	South Lake Van day.
<b>Amanda's blue</b>	<i>Polyommatus amanda</i>	Noted on the first day.
<b>Adonis blue</b>	<i>Polyommatus bellargus</i>	Çilli Pass.
<b>Common blue</b>	<i>Polyommatus icarus</i>	widespread.
<b>Mazarine blue</b>	<i>Polyommatus semiargus bellis</i>	Bitlis circuit, South Van.
<b>Nettle-tree butterfly</b>	<i>Libythea celtis</i>	Bitlis circuit.
<b>Small tortoiseshell</b>	<i>Aglais urtica</i>	Bitlis circuit.
<b>Painted lady</b>	<i>Cynthia cardui</i>	widespread.
<b>Southern comma</b>	<i>Polygonia egea</i>	Bitlis circuit.
<b>Queen-of-Spain fritillary</b>	<i>Issoria lathonia</i>	Scattered records.
<b>Glanville fritillary</b>	<i>Melitaea cinxia</i>	Tatvan Hotel grounds and elsewhere.
<b>Freyer's fritillary</b>	<i>Melitaea arduinna</i>	Abundant at the first day <i>Iris barnumae</i> spot. Also at <i>Iris paradoxa</i> site on Çatak valley day.
<b>Meadow brown</b>	<i>Maniola jurtina</i>	Erçek Gölü.
<b>Dalmatian ringlet</b>	<i>Protoerebia afra</i>	Nemrut Dağı and Güzeldere.
<b>Small heath</b>	<i>Coenonympha pamphilus</i>	widespread.
<b>Mallow skipper</b>	<i>Carcharodes alceae</i>	<i>Iris paradoxa</i> site on Çatak valley day.



<b>Red-underwing skipper</b>	<i>Spialia orbifer</i>	<i>Iris barnumae</i> spot on day 1 and South Van.
<b>Essex skipper</b>	<i>Thymelicus lineola</i>	Akdamar Landing.
<b>Small skipper</b>	<i>Thymelicus sylvestris</i>	Bitlis circuit.

## Systematic List Number 5      Reptiles & Amphibians

<b>Green toad</b>	<i>Bufo viridis</i>	Found at night behind the Sim-er Hotel.
<b>Banded frog</b>	<i>Rana camerani</i>	Tendürek Pass.
<b>Marsh frog</b>	<i>Rana palustris</i>	Frequently seen and especially heard.
<b>Desert treefrog</b>	<i>Hyla sauvignyi</i>	A few on the Bitlis circuit.
<b>Spur-thighed tortoise</b>	<i>Testudo graeca</i>	One on the first day, small numbers occasionally thereafter.
<b>Stripe-necked terrapin</b>	<i>Mauremys caspica</i>	South Van marshes.
<b>Caucasian agama</b>	<i>Laudakia caucasica</i>	Tendürek Pass and the Sim-er Hotel wetland.
<b>Sunwatcher</b>	<i>Phrynocephalus persicus</i>	One on the first morning at the Sim-er Hotel wetland.
<b>Strauch's racerunner</b>	<i>Eremias strauchi</i>	One on the first morning at the Sim-er Hotel wetland.
<b>Three-lined lizard</b>	<i>Lacerta media</i>	Ishak Paşa, Bitlis circuit.
<b>Valentin's lizard</b>	<i>Darevskia valentini</i>	Widespread, the common wall lizard on the tour.
<b>Snake-eyed lizard</b>	<i>Ophisops elegans</i>	Bitlis circuit.
<b>Ravergier's whip-snake</b>	<i>Coluber ravergieri</i>	One for Liam on the first day.
<b>Dice snake</b>	<i>Natrix tessellata</i>	A dead one at the Bendimahi Bridge. Two seen on the Bitlis circuit.

## Systematic List Number 6      Mammals

<b>[White-breasted hedgehog]</b>	<i>Erinaceus concolor</i>	A few dead on the road around Van.
<b>Asia Minor souslik</b>	<i>Spermophilus xanthoprymnus</i>	Tendürek Pass, Ishak Paşa.
<b>William's jerboa</b>	<i>Allactaga williamsi</i>	On the steppe out the back of the Sim-er Hotel at night.