

Northwest Iran

The Alborz Mountains

A Greentours Trip Report

27th April to 11th May 2009

Led by Paul Cardy and Mustafa Selahi

Trip Report by Paul Cardy

Days 1 Monday 27th April Departure

We left Heathrow at the scheduled time in the evening.

Day 2 Tuesday 28th April via Kandavan Pass to Chalus

I arrived in Tehran in the early hours, met Mustafa, and we in turn awaited the arrival of the group, who arrived punctually from London. After visiting the bank to change money we were on our way to tackle the Tehran traffic. Not as bad as sometimes this morning, and after an hour plus we were on the verdant Chalus road, the verges already very floriferous. We managed to find a small riverside café that could cook us breakfast eggs etc., and we enjoyed a pleasant break here. Nearby I found a few weedy species such as *Fumaria vaillantii* and *Asperugo procumbens*.

Back on the road we made our way slowly up to the Kandavan Pass. We just had to stop at a slope covered with many fine yellow *Tulipa montana*. At this site were also *Thlaspi perfoliatum* and *Descurainia sophia*, and a mystery grey umbellifer with leaves ad-pressed to the ground, that we would see at several other sites during the tour. Painted Lady, the first of very many, was on the wing.

Now in stunning scenery, having reached the Kandavan Tunnel, there was a remarkable amount of snow. Things were very backward this year, but there were a few *Gageas*, namely *Gagea confusa*, *Gagea villosa*, and *Gagea lutea* and a few other flowers such as *Corydalis angustifolia* and *Colchicum triphyllum*. Rock Thrush was seen extremely well and even photographed.

After eating lunch in this tranquil place we continued, taking a side road in search of *Iris imbricata*, in fine flower only a little later than this last year, but this year only apparent as very short leaves. Back on the main road we found *Fritillaria kotschyana* in bud, with several other species including *Anemone caucasica*, *Solenanthus stamineus*, *Primula veris macrocalyx* and *Ceratocephala falcata*.

We entered the Chalus gorge, and made a stop at a small stretch of disused road by one of the tunnels. Unfortunately the *Aquilegia olympica*, in fine flower in 2008, was not yet in bloom this

There was much *Ornithogalum sintenesii* just coming into flower, the *Puschkinia scilloides* was numerous, and *Gagea fistulosa* was abundant. *Gagea vegeta* was here too, and there was some fine *Merendera raddeana*. A lone plant of *Iris reticulata* was a very pleasing find. Water Pipit and Northern Wheatear were typical of this habitat, and we even saw 7-spot Ladybird.

The next stop had *Gagea reticulata*, *Gagea confusa*, and more *Gagea fistulosa*. *Fritillaria kotschyana* was in bud, and *Scilla sibirica caucasica* was in bloom, and here the *Ornithogalum sintenisii* was in flower. At the next site the fritillaries were also in bud, and Oxford and Cambridge blues were provided by the fine shows of *Scilla* and *Puschkinia* respectively. There was still one fine clump of *Galanthus transcaucasicus* in flower. The *Corydalis angustifolia* gave a fine display, and there was an attractive species of *Cerastium* and a yellow *Anchusa*. Painted Ladies flew over the slopes.

Lunch was eaten at a roadside café where the friendly owner cooked us very good lamb kebabs. As had been the case last year the others here, lorry drivers, were incredibly friendly and generous, offering us to share their food too.

In the afternoon we drove to the northern slopes of the pass. The first stop produced superb *Corydalis marschalliana*, both yellow and red forms. Lower down in the *Fagus orientalis* forest we had a few stops. The snow had only recently gone from here and consequently the flora was very backward. *Saxifraga cymbalaria* was in leaf by a small waterfall, *Dentaria quinquefolia* was in flower, there was more *Corydalis marschalliana*, and *Arum italicum* flowered on the roadside. Among the ferns were Male Fern and *Polystichum braunii*. Wren was singing.

Back at the pass we took a tangential road that produced a fine slope of *Corydalis angustifolia*, *Scilla* and *Puschkinia*, and various *Gagea* species. Here too were a pair of Alpine Accentors and a pair of Black Redstarts.

Day 5 Friday 1st May Ganjgah Area

The morning was fine with cloudless blue skies as we set off to explore the mountain steppe to the south of Khalkhal, stopping briefly in town to buy lunch supplies from the as ever very friendly shop keepers. The roadside slopes initially appeared rather flowerless, but just south of town I spotted a fine *Iris pseudocaucasica* which prompted the first stop. Here there were several others of this delicate species as well as *Conringia perfoliata*, *Aethionema arabicum*, *Amygdalus eriocarpa* and a species of *Nonea*.

A second brief stop was to have a closer look at the plant that was turning the fields pink. This was *Chorispora syriaca* and was certainly very common here. There was also the lovely *Roemeria hybrida*, *Centaurea depressa*, *Erodium ciconium*, and many other ruderal species that we would stop to have a better look at later in the day. Bee-eaters perched on a wire gave a fine photo opportunity and birds in general became much more evident in this habitat.

South of Ganjgah fields were patchily blue with the dark *Bellevalia pycnantha* and what must have been a pale blue form of *Muscari neglectum*, with what appeared to be a few hybrids between the two. There were also many *Bellevalia longistyla* in various stages of development. *Lagotis stolonifera* was common in patches with blue flowers close to the ground. Skylarks sang continually and we also located one on a nest. Crested and Bimaculated Larks were here too, as

were Tawny Pipit, Isabelline Wheatear, Linnet, and Corn Bunting. Despite the fine weather the only butterflies on the wing were Painted Ladies! As usual the migrant pyralid *Nomophila noctuella* was associated with them.

Among the other flowers were *Adonis aestivalis* and the tiny *Viola kitaibeliana*. There followed various short stops along this little used road, passing the occasional small village. Unfortunately the fascinating red parasite *Phelypaea tournefortii* had not yet emerged from the earth in this late season, last year there had been some fine examples along here. We found a delightful riverside spot for lunch and whilst some of us were chasing frogs and Clouded Yellows, Peter found a fine *Iris aucheri*, a highlight. Lunch was a very welcome selection of bread, cheese, tomatoes, cucumber, honey and tea, eaten under a warm sun. I saw a male Golden Oriole very well, and Barbara saw what was probably a Montpellier Snake. A little further on was a slope with *Vinca herbacea*, *Lathyrus inconspicuus*, and *Lathyrus cicera*.

The last stop of the day yielded a fine selection of arable weeds, ruderal species and the like. I quickly amassed an arm full of samples, and most, apart from the *Astragalus*, were identified, although among the latter was *Astragalus aduncus*, with bright pink flowers. Here were *Anchusa italica*, *Anchusa arvensis*, *Heterocaryum szovitsianum*, *Lappula squarrosa*, *Roemeria refracta*, *Papaver argemone*, *Scleranthus annuus*, *Trigonella monantha*, *Trigonella caerulescens*, *Vicia hybrida*, *Vicia narbonense*, *Chardinia orientalis*, *Gladiolus atrovioleaceus*, *Hyoscyamus niger*, *Linaria simplex*, *Sterigmotemon incanum*, *Chorispora tenella*, and *Holosteum umbellatum*.

As we drove back to Khalkhal rather heavy rain came, as was usual in the evenings here.

Day 6 Saturday 2nd May Mount Sabalan

Once again in fine weather we left at 8.30 for the longer drive to the city of Ardabil and the nearby peak of Sabalan, one of the country's highest, at about 4,800m. We made excellent progress with Ismail as usual driving safely and thoughtfully. Unfortunately we were held up for a long time at the police post approaching Ardabil, where an unusually unfriendly and unhelpful policeman was very officious about some supposed irregularity in the vehicle papers. After much hard discussion we were allowed to pass, negotiating the city with ease and thence to the spa town of Sareyn. Near there was an immature Golden Eagle being mobbed by corvids.

Things became more interesting as we drove through a couple of very traditional villages with ladies in interesting dress. Our first stop was prompted by swathes of *Puschkinia scilloides* and *Ranunculus kochii*. We soon found the first *Iris reticulata* var. *hyrcana*, and this would prove to be pleasingly common up here, with a few purple forms too. The Gagea were represented by *Gagea confusa*, mostly *Gagea dschungarica*, and a few *Gagea reticulata*.

Two males of the magna subspecies of Bluethroat were seen superbly well. Shore Larks were also seen extremely well, and amazingly one level area held at least fifty of them!! Linnets, Whinchats, and Radde's Accentor were all here too. A Cape Hare was startled into fleeing away, and a great find was a distinctive Wolf dropping. This is obviously a very rich area. Butterflies of course were only Painted Ladies.

At this first stop were several *Merendera raddeana* but a little further up the road they became incredibly numerous, colouring whole areas pink. We drove to near the very small scale ski station, with much snow around us and all the peaks still white. The views were fine, and here we admired the *Ranunculus kochii* and many *Merendera raddeana* and ate lunch, it being a little cool. I scanned all the surrounding slopes but produced none of the hoped for ungulates, however another Golden Eagle.

We walked some way down the valley while Ismail followed with the bus. The flowers were fine up here but the variety was very limited. A stop lower down yielded a new *Gagea*, namely *Gagea stipitata*, and a Chough was mobbing a Kestrel. We made our way back slowly, with another longish stop at the police post. A late afternoon stop to explore some roadside slopes was rather productive. Many plants from the previous day, and several new ones were seen. Among them were *Gladiolus atroviolaceus*, *Ajuga chamepitys*, *Linaria simplex*, *Salvia ceratophylla*, and *Conringia perfoliata*.

Day 7 Sunday 3rd May Asalem Pass and area

Moth of the day was *Phyllosdesma tremulifolia*, a small lappet, on the hotel walls.

A very good day began as usual with a short shopping trip into town. We then took the road back towards the Asalem Pass where we made our first stop to explore a grassy and rocky slope, which initially appeared to have little in bloom. The slopes however were literally covered with paeonies, the many thousands of which were all in bud. This is the cream flowered *Paeonia daurica tomentosa*, and must be an incredible sight when in full bloom, which in some years is exactly at this time.

In bloom here were however *Arnebia pulchra*, each yellow petal with a dark spot; some fine *Primula macrocalyx*; *Gagea villosa*; *Viola alba* in a purple subspecies; and a few *Puschkinias*. Tree Pipits performed display flights whilst Rock Buntings searched for food on the slopes. White-throated Robin was singing and a pair was seen very well. Red-backed Shrike perched on a close bush, and Blackcap was here too. A large black oil beetle was among several interesting insects, and Queen-of-Spain Fritillary relieved the Painted Lady monotony.

Another grassy slope held much *Puschkinia* and the like and a fine area of *Corydalis oppositifolia*. The cream flowered *Astragalus fragrans* was identified here, and it was certainly fragrant. Whinchat was seen well.

Just below the Asalem Pass a very barren slope supported some fine yellow flowered *Pulsatilla albana*, as well as much *Ornithogalum sintenisii* growing in apparently nothing! *Jurinella moschus pinnatisecta* was very common, but none was in flower. On a rock was *Asplenium septentrionale* and the white flowered *Draba siliquosa*. *Gagea alexeenkoana* was a good find, the only one of the tour.

The next stop was prompted by several fritillary plants that I spotted from the bus and a few turned out to be in flower so finally we caught up with this plant. A track then took us over the pass and again into oriental beech forest, here much disturbed by sheep and the surprisingly continuous habitation.

We found a quiet and reasonably shady riverside spot for lunch and whilst it was being prepared Brian and I walked up the gully into the woods. Here we saw a lone *Ornithogalum sigmoideum*, and the more prosaic *Sherardia arvensis*. Sombre Tits were active in the trees and the bird list was further augmented by a selection of woodland species including Great Spotted Woodpecker, Robin, Mistle Thrush, Dunnock, Redstart, Siskin, and Common Rosefinch. Nearby we saw a Small Copper.

Leaving Mustafa to look after Pauline, who was unwell, we drove further down the disturbed road in the hope of finding some reasonable habitat. We settled on a scrubby area opposite a café that had been fenced to keep out grazing animals. This held an interesting selection of plants including *Orobanche ramosa*, *Lathyrus setifolius*, *Lathyrus laxiflorus*, *Polygala anatolica*, and a species of *Nepeta*.

After a drink to say thankyou to the café owners for not batting an eyelid at us turning up and wandering all over their land (we were served by a young boy totally unfazed by our appearance in this rather remote spot), we returned to pick up Pauline and Mustafa and made our way back to the hotel.

Day 8 Monday 4th May Journey to Zanja

After a short stop for the usual lunch supplies at the friendly shops in Khalkhal, we took a very interesting minor road that we had not yet travelled, and headed towards Zanja, via the small town of Heshajin. Little Owl perched on a wire, and the first stop produced several new plants including *Boreava orientalis*, *Aethionema carneum*, and *Onobrychis galegifolia*, the latter with attractively patterned foliage. Pied Wheatear and Black-headed Bunting were noted, and a Spur-thighed Tortoise was helped across the road.

We stopped for the first of many fine *Tulipa systola*, and found also *Asperula orientalis*, *Vicia melanops*, and probable *Astragalus angustifolius*. *Calandra Lark* performed display flights. Various short stops yielded *Ornithogalum brachystachys* and *Ornithogalum cuspidatum*; *Adonis macrocarpa*; *Stachys lavandulifolia*; and unidentified species of *Onosma*, *Lallemantia*, *Scrophularia* and *Tragopogon*. Swallowtail was on the wing.

Another stop was prompted by some fine pink clumps of *Aethionema membranaceum*, a beautiful crucifer. Here too was *Papaver dubium*, *Ixiolirion tataricum* and possibly *Erodium oxyrhynchos*. A pleasing find was the hairstreak *Tomares callimachus*.

We found a superb lunch stop, with some very productive slopes and a few trees to provide some shade. The *Aristolochia bottae* here was superb, and *Allium noeantum* was in flower. *Jasminum fruticans*, a species of *Cicer*, *Nonea caspica*, and an attractive *Matthiola* were among the many species, and *Orobanche anatolica* parasitised the *Salvia*.

We continued the journey, through extensive barren landscapes, seeing several Caucasian Agamas en route. Once on the main road, I spotted some *Eremurus kopetdaghensis* in fine flower, and a stop in this semi-desert habitat proved very productive. Here we were delighted to see superb *Iris meda* and other interesting plants came thick and fast. *Gladiolus szovitsi* and *Tulipa biflora* were in flower. The attractive yellow flowered shrub with fleshy leaves was *Zygophyllum atriplicoides*, and also here were *Glaucium elegans*, *Caccinia macranthera*, and *Bongardia*

chrysogonum, A *Gagea* in this rather surprising habitat keyed out perfectly as *Gagea wendelboi*, a very local endemic known only from a very small area further east. This remains a mystery.

Arrival in Zanjan was rather late, and after settling into the good rooms we enjoyed a welcome dinner, and fish was even available!

Day 9 Tuesday 5th May Gilvan Road

Uncharacteristically the day began overcast and we were soon in rain and cold wind. West of Zanjan I spotted a fox trotting across the desert, and once off the main road a lone *souslik* poked its head out of a burrow. Nearby was a small pond supporting four Wood Sandpipers, a Common Sandpiper, and a personata White Wagtail.

The first botanical stop was cold and windy, but we soon found some *Corydalis verticillaris*, and an unidentified yellow flowered cruciferous shrub was prominent. We almost gave up on this site due to the cold but Mustafa called us up the slope where we came upon a fine show of many *Fritillaria crassifolia kurdica*, a beautiful sight. There were also a number of *Tulipa humilis*, and at the next stop many more in a variety of colours, but all were of course closed up with the lack of sunshine.

The rain became heavier so we decided to drive down to our furthest point of the day and then work our way back in hopefully better weather. Our target plant was *Iris acutiloba lineolata* and as we approached we already spotted some in perfect flower on the slopes. This really is a remarkable iris, and we admired it for a long time, there being no rain here so plenty of photo opportunities. These slopes supported a wealth of other plants. The hairy *Rindera lanata* was attractive, a different bright yellow *Onosma* to that seen yesterday, more *Bongardia chrysogonum*, *Silene conoidea*, a mauve *Scorzonera*, *Tragopogon longirostris*, *Cerastium perfoliatum*, *Hedypnois cretica*. A pair of Lesser Whitethroats skulked in the shrubs.

Lunch was eaten in a teahouse to shelter from the cold wind, and the owners were typically welcoming even though we weren't eating their food! We did of course make it right with them, as well as buying a few things there. Barbara and Brian were kept busy by a selection of moths on the window behind them, and their antics, with Barbara clambering about on the window sill to get a better look keeping the rest of us amused as we ate lunch. *Idaea filicata*, an ennomonid, and a rustic type noctuid were among the species here.

One of the plants of the day was a fine number of *Fritillaria olivieri*, or at least something close to that species, growing in wet flushes beside a stream where a Nightingale was seen in the poplars. *Thlaspi liliacinum* was here too.

Rain came heavily again in the late afternoon but didn't stop us finding a grassy slope covered in *Colchicum szovitsii*, and then some fine *Tulipa humilis* with a few open.

Day 10 Wednesday 6th May Zanjan to Takab via Takht-e-Suleiman

Today we left Zanjan to travel west to Takab, initially through steppe and agriculture, then over the a verdant pass. We made several stops along the way, some planned, others when we

spotted things of interest. Fox was again seen not far into the journey and a variety of birds punctuated the journey, among them Crested Larks, and Lesser Grey Shrikes, and before leaving I had seen Olivaceous Warbler, and Whitethroat, in the hotel grounds.

A stop on a dryish slope yielded a fine selection of legumes, including a cream flowered species with entire leaves, perhaps a species of *Chesneya*. Also here was *Hesperis pulmonarioides*, *Linum bungei*?, a spurge possibly *Euphorbia rigida*, and the leaves of a juno iris. A little later a field full of *Allium hirtifolium* in bud produced a great surprise in the form of *Fritillaria persica*, in superb flower. This was somewhat to the north-east of known sites I think. The hairstreaks *Callophrys suaveola* and *Tomares callimachus* were on the wing.

A fine show of *Tulipa systola* followed, and *Ornithogalum orthophyllum* prompted a stop, followed by a slope full of a striking pink flowered rosaceous shrub. Here were some fine yellow flowered *Anemone biflora* and a delightful pink flowered *Onosma roseo-alba*. There were two meadow-rues, the smaller being *Thalictrum isopyroides* and the other *Thalictrum sultanabadense*. *Biebersteinia multifida* was here too. An important find was the rare *Gagea caroliki*, with very few Iranian records (but how many people look at all these gageas?). A spur-thighed tortoise sheltered under a bush. All these sites were windy, indeed very windy, but as nothing compared to the pass where we intended to eat lunch. A ruined building here, with no doors or windows, still provided some shelter, and Mustafa set out the selection on the table in one of the empty rooms. Rather a bizarre experience with the wind howling outside.

Leaving the ladies in the bus the three men tackled the extremes of the weather to explore the nearby wet flushes and snow patches. *Colchicum szovitsii* was very common, and there was a fine show of *Tulipa biflora*. Gageas were represented by *Gagea dshungarica*, *Gagea fistulosa*, and *Gagea villosa*. There were a reasonable number of the nominate form of *Iris reticulata* and *Allium akaka* was here. The vegetable sheep shrubs up here were *Gypsophila aretioides*. A small flock of Twite kept ahead of us as we walked.

In the afternoon we visited the important historical site of Takht-e-Suleiman, the home of one of the four sacred fires of Zoroastrianism. Whilst wandering around this high altitude site, at 2,600m, a great surprise came with the addition of a further two new species of *Gagea*, both with bulbils, *Gagea bulbifera* and *Gagea gageoides*, bringing the total to thirteen. Beside the lake in the centre of the ruins were several *Primula auriculata*, and beside a rivulet much tiny flowered *Glaux maritima*, *Pedicularis comosa*, and *Alkanna orientalis*.

The site was relatively busy today with several other visitors, one group in particular keen to have their picture taken with us, and to look through my binoculars.

We continued to Takab, not far now, and settled into our hotel, a small place, and also surprisingly busy this year, with several foreign guests too.

Day 11 Thursday 7th May Takab Area

First we travelled some thirty kilometres north of Takab to a hillside that Mustafa told us supported many interesting plants. Although initially we found little we soon came upon some fine species. There were several *Tulipa systola* and some impressively large flowered individuals that may have belonged to another species. The impressive *Bellevalia sarmatica*, with

very wide leaves, was new for us, and a highlight was *Fritillaria zagrica*. There were several *Corydalis verticillaris*, and many *Bellevalia pycnantha*. An Egyptian Vulture mobbed by corvids was an interesting sight and Bimaculated Larks sang throughout our visit, and Tawny Pipit was seen very closely.

Back towards Takab we stopped to look at a field full of *Leontice leontopetalum*, and as a bonus found many fine *Fritillaria persica* and very large numbers of the *Bellevalia sarmatica*. Rock Sparrow was here too. Back through town, we headed south to visit a selection of sites along a valley, the surrounding peaks still having much snow, and there being many snow patches still rather low down.

At lunchtime we arrived at a small lake near the village of Bader Loo. Here the season was obviously rather late, and flowers were also depleted by the sheep flocks here. Nevertheless we soon found a good number of *Merendera sobolifera* under a band of scrub, and also out on the grassland. Syrian Woodpecker was seen and Cetti's Warblers called explosively from the bushes. On the far side of the reed fringed lake, on a dry slope, were many iris plants in leaf. I had seen this species the previous year, although the leaves were much more developed there were no flowers then either. This species remains a mystery. Also seen were *Colchicum szovitsii*, *Gagea dshungarica* and *Gagea fistulosa*.

We ate lunch on a pleasant hillside with Pied Wheatear singing nearby. I then took everyone to show a nesting pair of Penduline Tits busy building their nest. A pair of Redshank was noted too, flushed by the fires started by the shepherds. Back on the road we stopped at Chertagah pass where again grazing and a late season meant little in flower, although there were some fine forms of *Iris reticulata*. Shore Larks and Bimaculated Larks were active on the slopes. Through another village Ismail drove a longish track to another pass, Chichaloo. Here we explored the wet flushes and dry hillsides. Last year I had seen fritillaries in flower in the damp areas, but we were too early for those. We did however find many leaves and finally some fine flowers of *Fritillaria crassifolia kurdica*. Golden Eagle flew over.

Day 12 Friday 8th May To Bijar, Sanandaj, and Hamadan

Another transfer day saw us heading south, initially to Bijar. The birding immediately south of Takab was rather good, with Little Owl, two Egyptian Vultures, Black Kites, Cuckoo, Hoopoe, Roller, and Lesser Grey Shrike.

The first short botanical stop yielded *Rindera lanata*, *Tulipa biflora*, *Anemone biflora* and a beautiful purple and white flowered legume. Next came some superb *Iris aucheri*, along with *Euphorbia rigida*, as well as Isabelline Wheatear and Crimson-winged Finch. *Fritillaria persica* was numerous at another site.

An extremely good slope north of Bijar yielded *Eremurus spectabilis* in bud; both *Roemeria* species in good numbers; a lone *Bellevalia olivieri*; *Bellevalia longipes*; *Muscari caucasicum*; *Ornithogalum orthophyllum* and *Ornithogalum cuspidatum*; *Salvia multicaulis* and *Salvia ceratophylla*; *Bungea trifida*; *Tulipa montana*; and *Moltkia caerulea*. Also here were unidentified *Tragopogon*, *Scorzonera*, *Onosma*, and of course several *Astragalus*. Back on the bus Pauline revealed that she'd also found *Iris meda* here!!

Mid-morning saw us reaching Bijar and the great surprise of meeting a man with arm fulls of just gathered *Fritillaria imperialis*. We quizzed him and he pointed up to the mouth of an impressive cave in the mountains to the south, sadly too far for us to walk today, but very good to know the site. After a fuel and toilet stop we took the road west, the land now mostly agricultural, although we made a few short stops.

North of Sanandaj we found a superb riverside site for lunch, which produced many new things. *Gentiana olivieri*, *Scilla persica*, *Vicia grandiflora*, *Legousia pentagonia*, *Vaccaria hispanica*, and *Glaucium grandiflorum* were all here, as well as Spotted Flycatcher and Black-headed Bunting. There were several butterflies including *Melanargia hylata*, Zephyr Blue, and Common Blue.

We reached Sanadaj at 3.00 p.m. and soon negotiated the city. East of there was a very interesting pass that we had a little time to explore. *Fritillaria persica*, *Biebersteinia multifida*, *Iris aucheri*, *Allium kharputense*, *Euphorbia denticulata*, *Onosma roseo-alba*, *Leontice armeniaca*, and *Tulipa systola* were among the species noted here.

There followed a rather long drive east to Hamadan, with little of interest en route. Early evening saw us west of Hamadan in the area that the 'Moleskin' *Iris* was supposed to be. Various stops around the exact kilometre mark on the road, and supposedly the correct village, yielded no sign. We were obviously very close but not quite in the right place, but strangely the habitat here just didn't seem right.

So it was time to go into Hamadan, and a reasonably upmarket central hotel with very comfortable rooms. Dinner in the very kitsch restaurant was quite an experience.

Day 13 Saturday 9th May Hamadan to Qazvin

First of all we drove into the mountains immediately south of Hamadan. Here there was almost nothing in flower, with many late snow patches, and it was cold. A few short stops yielded only *Tulipa humilis*, *Gagea fistulosa*, and *Corydalis verticillaris*. Back in Hamadan I thought a quick stop at the University Science bookshop may yield something botanical, but alas no. Now on the main road towards Qazvin a toilet stop at a small town park saw the few tulips gathered earlier were duly planted in the flower beds for some rather cheating photos!

A rather long detour took us into some dry hills and here we had lunch, near a family who were rather surprised that we turned up in such a remote spot. White *Tulipa humilis* was in fine flower, and *Arabis brachycarpa* and *Gagea reticulata* were here whilst Stonechat sat on the shrubs.

Back on the main road the provincial border had *Gagea bulbifera*, *Gagea dschungarica* and *Gagea gageoides* and a few *Fritillaria zagrica*. A little further north were some more productive dry gullies which held *Eremurus kopetdaghensis*, the beautiful *Fibigia suffruticosa*, *Teucrium multicaule*, and *Hesperis campicarpa*.

The last stop had some fine *Iris meda*, a woody sandwort that was probably *Arenaria ledebouriana*, *Hulthenia persica* in flower, and a remarkable *Astragalus* with red flowers, small grey hairy leaves, and inflated fruits.

We reached Qazvin early evening and settled into a good hotel. After dinner (or during dinner in my case) we made a last run through the plant list, now very respectable.

Day 14 Sunday 14th May Qazvin area, Journey to Tehran

Until early afternoon we explored the very productive mountains north of Qazvin. Various short stops produced many plants, such as *Moltkia caerulea*; some fine *Papaver commutatum* and several other poppies; *Euphorbia myrsinites*; a purple flowered *Tragopogon* with short petals much exceeded by bracts; *Crambe orientalis*; *Tulipa systola* and *Tulipa humilis*; *Corydalis verticillaris*; *Onosma tenuiflorum*; two unidentified species of *Orobanche*; *Linum album*; *Verbascum orientalis*; and *Nonea stenolen*. A beautiful ferruginous flowered *Cleome* was common and *Sophora alopecuroides* flowered on the verges in the 'City of Golden Bunches'. A Swallowtail larva was found, extending its osmateria. Black-veined White, Queen-of-Spain Fritillary, Marbled Skipper, and most notably the copper *Lycaena asabinus* were among the butterflies and Woodlark was seen.

After lunch, eaten at a site where surprisingly both species of Rock Nuthatch were present, it was time to head back to Qazvin and then head purposefully to Tehran. We made surprisingly swift progress, even through Tehran, and arrived at the hotel with ample time to pack and relax before enjoying the final dinner in a rather good restaurant, alas of course unable to celebrate an excellent tour with a glass or two of wine.

Day 15 Monday 15th May Departure

In the early hours of the next morning Ismail promptly arrived to drive us to the airport where we said our farewells, the group returning to the UK, and I awaiting my later flight.

Systematic Lists

The Itinerary

- Day 1 Monday 27th April Departure
- Day 2 Tuesday 28th April Arrival. Tehran via Kandavan Pass to Chalus.
- Day 3 Wednesday 29th April Caspian Coast, Chalus to Rasht, Masuleh, to Khalkhal
- Day 4 Thursday 30th April Asalem Pass and Asalem
- Day 5 Friday 1st May Khalkhal to Ganjgah area
- Day 6 Saturday 2nd May To Ardabil, Sareyn, Sabalan
- Day 7 Sunday 3rd May Asalem Pass area
- Day 8 Monday 4th May Heshajin, to Zanjan
- Day 9 Tuesday 5th May Gilvan road
- Day 10 Wednesday 6th May Zanjan to Takht-e-Suleiman, Takab
- Day 11 Thursday 7th May Takab area, Bader Loo, Chichaloo
- Day 12 Friday 8th May Takab, Bijar, Sanandaj, Hamadan
- Day 13 Saturday 9th May Hamadan to Qazvin
- Day 14 Sunday 10th May North of Qazvin, to Tehran
- Day 15 Monday 11th May Departure

Systematic List Number 1 Plants

A variety of works were used for identification, although for several families nothing comprehensive was available. A very few species were seen in flower on the 2008 reconnaissance, slightly later in mid May, in what was a much earlier season, and are included here. The variety of species in flower during this year's tour was much greater.

The following abbreviations are used:-

KP = Kandavan Pass

CG = Chalus Gorge

M = Masuleh

As to AP = Asalem to Asalem Pass

KK = Khalkhal

Ganj = Ganjgah

Sab = Mt.Sabalan

Hesh = Heshajin

Z or Zan = Zanjan

Gil = Gilvan

TeS = Takht-e-Suleiman

Tk = Takab

B = Bijar

San = Sanandaj

H or Ham = Hamadan

Q or Qaz = Qazvin

N,S,E,W = compass points!

Ferns and Allies (Reference: 'An Annotated Check-list of the Ferns of Iran', P.Wendelbo, Iran.Journ.Bot. 1:11-17 (1976))

<i>Asplenium trichomanes</i>	Below M, CG, AS to AP
<i>Asplenium adiantum-nigrum</i>	Below M
<i>Asplenium septentrionale</i>	Rocks on AP
<i>Asplenium ruta-muraria</i>	Lunch site day 6
<i>Athyrium filix-femina</i>	Caspian forests
<i>Ceterach officinarum</i>	CG, As to AP
<i>Cystopteris fragilis</i>	Rocks in Caspian forest
<i>Dryopteris borrieri</i>	Surely overlooked in Caspian forests as apparently frequent there (Wendelbo 1976)
<i>Dryopteris filix-mas</i>	Caspian forests
<i>Dryopteris pallida</i>	Surely overlooked in Caspian forests as apparently frequent there (Wendelbo 1976)
<i>Equisetum fluviatile</i>	Lunch site day 4
<i>Equisetum telmateia</i>	Noted on day 2
<i>Matteucia struthiopteris</i>	As to AP, where common
<i>Phyllitis scolopendrium</i>	Below M, and As to AP
<i>Polystichum aculeatum</i>	Below M
<i>Polystichum braunii</i>	Leaves hairy above. As to AP.
<i>Polypodium vulgare</i>	Below M
<i>Polypodium interjectum</i>	Below M
<i>Pteridium aquilinum</i>	Locally common in Caspian area

Gymnospermae

Cupressaceae

Juniperus excelsa

KK to Z

Cupressus sempervirens

Locally dominant south of Chalus

Ephedraceae

Ephedra procera

Locally rather common. KK to Z, w of Z, etc. Maybe more than one species seen.

Angiospermae

Dicotyledones

Salicaceae

Populus ?caspiaca

Caspian area. Possibly more than one species seen.

Betulaceae

Alnus subcordata

?recorded

Alnus orientalis

Below M, As to AP

Betula pendula

Recorded

Fagaceae

Quercus macranthera

N of KK, and day 6

Quercus spp.

Others not identified

Fagus orientalis

Often dominant in Caspian forests

Corylaceae

Carpinus orientalis

Numerous in Caspian forests

Aristolochiaceae

Aristolochia bottae

Many fine plants at lunch site on day 7

Santalaceae

Thesium sp.

A very leafy species with 5 petals, KK to Z

Urticaceae

Parietaria judaica

CG etc.

Parietaria ?lusitanica

A small leaved species resembling this at TeS

Parietaria spp.

At least one other species seen, CG etc.

Urtica dioica

Recorded

Moraceae

Ficus sp.

Scattered records

Ulmaceae

Celtis tournefortii

Presumably this species in CG

Juglandaceae

Juglans regia

Recorded

Polygonaceae

Rheum ribes

Widespread, in leaf and bud, often being gathered for food, e.g. Gilvan road

Rumex scutatus

In leaf AP etc.

Rumex spp.

Several present but not identified

Ranunculaceae

Anemone caucasica

Several at *Fritillaria kotschyana* site below KP, AP, etc. In fine flower.

Anemone biflora

Lvs KP, yellow flowered form below pass Z to Tk, and Tk to Ham, and Ham to Q.

Aquilegia olympica

Leaves seen on day 3. In good flower in CG in May 2008.

Consolida ?orientalis

In flower in 2008

Pulsatilla albana

Several in fine flower on one rocky slope below AP. Pale yellow flowers.

Ranunculus kochii

Locally very common at higher altitudes, by snow Melt etc.

Ranunculus arvensis

Locally common arable weed, as in Ganj area

Ranunculus marginatus

Annual, damp ground, basal petioles winged at base. Below M

Ranunculus muricatus

Below M, below AP

Ranunculus oxyspermus

Widespread

Ranunculus aucheri

Whole plant appressed hairy. Scattered records.

Ranunculus elbursensis

Sepals with membranous margin. Below KP.

Ranunculus macrorrhynchus

Pinnatisect leaves. KK area etc.

Ranunculus cicutarius/leptorrhynchus

One of these M to KK

Ranunculus polyanthemus

Locally common in flower in wet meadows in May 2008

Ranunculus sojakii

Purpurascant sepals. Apparently this species H to Q lunch site, but out of known range

Ranunculus sp.

One or more white flowered aquatic species present.

Adonis aestivalis

Sepals spreading, achene with 2 small projections. Widespread and often common.

Adonis flammea

Sepals pressed close. KK to Z, Gil

Adonis microcarpa

Achenes in elongated head. KK to Z, Gil

Ceratocephala falcata

Widespread and locally common

Ceratocephala testiculata

Widespread, e.g. KK and Ganj areas

Thalictrum isopyroides

Below pass Z to Tk

Thalictrum sultanabadense

A larger species at the same site as the previous one

Delphinium sp.

In leaf at the paeony site near KK

Caryophyllaceae

<i>Silene latifolia persica</i>	Recorded
<i>Silene spergulifolia</i>	In flower at several sites in 2008
<i>Silene conoidea</i>	Scattered records
<i>Silene arguta</i>	Below AP opposite cafe on day 6
<i>Herniaria glabra</i>	Recorded
<i>Gypsophila aretioides</i>	'vegetable sheep', pass Z to Tk
<i>Stellaria media</i>	Locally common
<i>Cerastium glomeratum</i>	Recorded
<i>Holosteum umbellatum</i>	Locally common, e.g. Ganj, Z to Tk
<i>Saponaria</i> sp.	Pink flowers, Qazvin area
<i>Vaccaria hispanica</i>	N of San
<i>Cerastium</i> sp.	AP, large flowers
<i>Cerastium perfoliatum</i>	Gil
<i>Scleranthus annuus</i>	Ganj, etc.
<i>Arenaria serpyllifolia</i>	Scattered records
<i>Arenaria ledebouriana</i>	This species? Woody, small leaves, Iris meda site Ham to Qaz

Capparidaceae

<i>Cleome</i> sp.	Very attractive, ferruginous flowers, strong smelling, locally common N of Q
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Brassicaceae

<i>Aethionema arabicum</i>	Tulip slope south of KP, etc.
<i>Aethionema carneum</i>	Near KK, H road etc.
<i>Aethionema membranaceum</i>	Large clumps with striking pink flrs KK to Z, etc.
<i>Alliaria petiolata</i>	Noted on day 1
<i>Alyssum</i> spp.	Probably several species widespread.
<i>Anchonium</i> sp.?	An attractive yellow flowered shrub along the Gilvan Road, and N of Q
<i>Arabidopsis thaliana</i>	Lunch site near M
<i>Arabis aucheri</i>	Sab
<i>Arabis brachycarpa</i>	Lunch Ham to Qaz
<i>Arabis turrata</i>	Below M and below AP
<i>Barbarea</i> sp.	Bright yellow flowers, Ganj
<i>Boreava orientalis</i>	KK to H
<i>Camelina</i> ?microcarpa	Ganj
<i>Capsella bursa-pastoris</i>	Widespread
<i>Cardamine uliginosa</i>	Local in wet flushes, e.g. Gil
<i>Cardaria draba</i>	Roadsides
<i>Chorispora syriaca</i>	Pink flowers very common in Ganj area fields, colouring them pink. Fruit jointed, with spherical basal segments, and beaked.
<i>Chorispora tenella</i>	Pink flrs with darker basal dot, bristly broad leaves. Ganj.
<i>Clypeola jonthlaspi</i>	Scattered records

<i>Conringia perfoliata</i>	KK area
<i>Crambe orientalis</i>	N of Q
<i>Dentaria quinquefolia</i>	As to AP, in forest, a few
<i>Descurainia sophia</i>	Widespread and common
<i>Draba siliquosa</i>	White flrs, rocks just below AP
<i>Erophila verna</i>	M to KK, etc.
<i>Erysimum repandum</i>	A small annual. Z to Tk.
<i>Erysimum</i> sp.	CG
<i>Fibigia suffruticosa</i>	Beautiful purple flowers. Ham to Qaz.
<i>Hesperis campicarpa</i>	Ham to Qaz
<i>Hesperis pulmonarioides</i>	Z to Tk
<i>Hesperis</i> sp.	Striking purple flowers, lunch site n of San
<i>Isatis</i> spp.	One or more species seen, e.g. KK to Kive, KK to Zan
<i>Lepidium perfoliatum</i>	Ganj, etc.
<i>Matthiola boissieri</i>	Probably this species Ham to Qaz
<i>Matthiola longicuspidata</i>	Gil
<i>Matthiola longipetala</i>	Lunch site on day 7
<i>Rorippa nasturtium-aquaticum</i>	KP etc.
<i>Sisymbrium officinale</i>	Recorded
<i>Sisymbrium orientale</i>	Zanjan hotel grounds
<i>Sterigmostemon incanum</i>	Ganj
<i>Thlaspi liliacinum</i>	Gilvan
<i>Thlaspi perfoliatum</i>	Tulip slope south of KP, etc.

Resedaceae

<i>Reseda lutea</i>	Widespread and common
<i>Reseda luteola</i>	Zanjan hotel grounds

Paeoniaceae

<i>Paeonia daurica tomentosa</i>	Literally thousands in bud on north side of AP. Usually in flower at this time, but this year will Give a fine show in mid May.
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N:B: In 'Paeonia (Paeoniaceae) in the Caucasus', De-Yuan Hing and Shi-Liang Zhou, Bot. Jour.Linn.Soc., 2003, *mlokosewitschii* and *wittmanniana* are treated as subspecies also of *P. daurica*, and neither is stated to occur in Iran.

Berberidaceae

<i>Bongardia chrysozonum</i>	Scattered records, e.g. W of Z, Gil
<i>Leontice leontopetalum</i>	Locally common near Takab
<i>Leontice armeniaca</i>	W of Z, in fruit, and w of San in flower

Papaveraceae

<i>Chelidonium majus</i>	Recorded
<i>Glaucium corniculatum</i>	Z to Tk

<i>Glaucium elegans</i>	Annual, stems leafy, petals yellow or orange with Dark basal blotch. Fruits splits from bottom to top, stem lvs clasp stem. M to KK, W of Z, N of Q.
<i>Glaucium grandiflorum</i>	Ovary and fruit capsule white hairy. N of San
<i>Papaver arenarium</i>	Pair of short horns terminate flower buds. Widespread and very common
<i>Papaver argemone</i>	Ganj, Tk to Ham
<i>Papaver pseudoorientale</i>	In leaf AP, in fine flower there May 2008
<i>Papaver commutatum</i>	Petal blotch in middle of petal. N of Q
<i>Papaver dubium</i>	Recorded
<i>Papaver fugax</i>	Recorded?
<i>Papaver pavoninum</i>	Apparently this species N of Q, with bristly buds And ribbed pods
<i>Papaver rhoeas</i>	Recorded
<i>Roemeria hybrida</i>	Locally common. Ganj, Gil, N of B, etc.
<i>Roemeria refracta</i>	Ganj, N of B, etc.
<i>Hypecoum trilobum</i>	Ganj etc.
<i>Hypecoum pendulum</i>	Recorded
Fumariaceae	
<i>Corydalis verticillaris</i>	Gilvan road
<i>Corydalis marschalliana</i>	As to AP locally very common, yellow and purple flowered forms
<i>Corydalis angustifolia</i>	Kandavan Pass, AP numerous
<i>Corydalis oppositifolia</i>	KP, AP – locally fine, Gil
<i>Fumaria vaillantii</i>	At breakfast on day 1
<i>Fumaria parviflora</i>	KK to H
<i>Fumaria asepala</i>	Nr Kive, Gil etc.
Saxifragaceae	
<i>Saxifraga cymbalaria</i>	In leaf in forest As to AP
Rosaceae	
<i>Amygdalus eriocarpa</i>	Widespread on rocky slopes
<i>Amygdalus sp.</i>	Beautiful pink flowered shrub below pass Z to Tk
<i>Alchemilla spp. Sp.</i>	M to KK etc.
<i>Fragaria vesca</i>	Recorded
<i>Prunus prostrata</i>	W of San
<i>Cerasus incana</i>	This species in fine flower below pass, Z to Tk?
<i>Potentilla crantzii</i>	AP
<i>Potentilla sp.</i>	M to KK
<i>Potentilla reptans</i>	Recorded
<i>Potentilla sterilis</i>	M to KK
<i>Rosa spp.</i>	At least 2 species in flower in 2008
<i>Hulthenia persica</i>	In bud Gil, etc. In flower at Iris meda site H to Q.
<i>Sanguisorba minor</i>	Noted in leaf
<i>Aphanes arvensis</i>	M to KK, below AP

Sibbaldia procumbens/parviflora AP in 2008
Crataegus monogyna Scattered records in flower

Fabaceae

Astragalus aduncus Bright pink flowers, narrow leaflets, Ganj steppe
Astragalus alyssoides This or similar Z to Tk
Astragalus angustiflorus KK to Z
Astragalus fragrans Below AP
 Of course many fine species of *Astragalus* were present, with several different species at most sites, with only a few being positively identified.
Cercis siliquastrum Below KP
Chesneya sp. Probably this genus. Entire leaves and cream flrs.
 Ham to Q and Z to Tk
Cicer sp. Common at the lunch site on day 7
Colutea sp. Recorded
Lathyrus cicera This or a similar species Ganj road etc.
Lathyrus inconspicuus Ganj road
Lathyrus laxiflorus Below AP
Lathyrus rotundifolius miniatus In flower below KP in May 2008
Lathyrus setifolius Below AP
Lathyrus sphaericus Recorded
Lotus spp. Leaves near Kive and N of Q, different species?
Medicago arabica Recorded
Medicago polymorpha Ganj
Medicago scutellata Lunch site day 7
Melilotus sp. N of Qaz
Onobrychis cornuta KK to Hesh etc.
Onobrychis galegifolia Yellow flowers veined orange, leaves marked with
 Dark lines on veins, KK to Z, etc., just coming into
 flower
Onobrychis sim.viciifolia Near Chalus
Pisum sativum Ganj
Sophora alopecuroides Roadsides N of Q
Trifolium aureum Day 6
Trifolium pratense Recorded
Trifolium repens Recorded
Trifolium sp. White flowers, in tussocks on rocks, pretty
 patterned lvs, slightly inflated fruit, near M
 Ganj, lunch on day 7 etc.
Trigonella caerulea Ganj, N of Q, etc.
Trigonella monantha Few small yellow flowers, pods c.5, in circles,
 strongly upcurved
Trigonella sp.
Vicia cracca Recorded 2008
Vicia grandiflora N of San
Vicia hybrida Ganj
Vicia melanops Only at one site, KK to Hesh
Vicia narbonense Ganj

<i>Vicia peregrina</i>	This or a similar species Ganj
<i>Vicia sativa</i>	Recorded
<i>Vicia tetrasperma</i>	This or similar Ganj
<i>Vicia villosa</i>	Lunch day 7

Oxalidaceae

<i>Oxalis</i> sp.	Yellow flowered, days 3 and 6
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Geraniaceae

<i>Geranium tuberosum</i>	Widespread
<i>Geranium pyrenaicum</i>	M etc.
<i>Geranium columbinum</i>	Near M
<i>Geranium purpureum</i>	As to AP
<i>Geranium stepporum</i>	Ganj
<i>Geranium robertianum</i>	Near M
<i>Geranium molle</i>	Recorded
<i>Geranium dissectum</i>	Day 2
<i>Erodium cicutarium</i>	CG etc.
<i>Erodium gruinum</i>	Recorded
<i>Erodium ciconium</i>	Ganj
<i>Erodium malacoides</i>	Day 1
<i>Erodium oxyrrhynchum?</i>	KK to H
<i>Biebersteinia multifida</i>	H to Q, below pass Z to Tk, Tk to Ham

Euphorbiaceae

<i>Euphorbia denticulata</i>	W of San
<i>Euphorbia myrsinites</i>	N of Q
<i>Euphorbia rigida</i>	Z to Tk and elsewhere a species resembling this but smaller
Many other species of <i>Euphorbia</i> were seen but not identified	
<i>Andrachne telephioides</i>	Ham to Q

Linaceae

<i>Linum bienne</i>	Recorded
<i>Linum bungei?</i>	this species Z to Tk, Tk to Ham?
<i>Linum</i> sp.	large yellow flrs
<i>Linum album</i>	N of Q

Polygalaceae

<i>Polygala anatolica</i>	Probably this species M to KK and below AP
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Aceraceae

<i>Acer cappadocicum</i>	Caspian Forests
<i>Acer monspessulanum</i>	Lunch KK to Z
<i>Acer hyrcanum</i>	CG

Zygophyllaceae

Peganum harmala

Zygophyllum atriplicoides

Seen in 2008

This was the shrub with thick fleshy leaves, and oblong yellow flowers, growing in the stony desert west of Zanjan. Identified using Flora of Iraq, Vol.4 Part 1.

Platanaceae

Platanus orientalis

Widespread and common

Hamamelidaceae

Parrotia persica

Elaeagnaceae

Elaeagnus angustifolia

Tiliaceae

Tilia caucasica

Caspian forests

Malvaceae

Alcea sp.

Malva parviflora

Malva sylvestris

lvs H to Q

Ganj

Recorded

Thymeleaceae

Daphne glomerata

In flower in 2008

Cistaceae

Helianthemum ledifolium

KK to H Gil Tk to Ham

Tamaricaceae

Tamarix ramosissima?

Tamarix spp.

W of Z

others Z to Tk and H to Q

Hypericaceae

Hypericum scabrum

Locally common, in leaf or bud

Violaceae

Viola alba

Viola kitaibeliana

Viola modesta

Viola occulta

Viola sieheana

Probably a purple flowered ssp. below AP etc.

Ganj, below AP, etc.

Ganj

KK to Z

Scattered records

Viola sp. Very small flowers, distinctive serrate cordate lvs,
FK site
The genus *Viola* was well represented and several species were unidentified

Primulaceae

Primula auriculata 1 just in flower KP, otherwise locally common M to
KK, Gil, TeS, H to Q
Primula veris macrocalyx FK site and area, M to KK, AP
Primula vulgaris Locally abundant at higher altitudes in Alborz, M
to KK, AP
Cyclamen coum caucasicum In leaf, lunch day 6
Cyclamen elegans In leaf, lunch day 6, As to AP
Androsace maxima Locally common, e.g. KK, AP, Ganj
Glaux maritima TeS, very small
Anagallis arvensis M to KK, below AP, blue and red flowered forms

Plumbaginaceae

Acantholimon sp. In leaf only, Ganj lunch riverside

Oleaceae

Jasminum fruticans CG, W of Z

Apocynaceae

Vinca herbacea M to KK, Ganj etc.

Punicaceae

Punica granatum Recorded

Onagraceae

Circaea sp. As forest, lvs

Aquifoliaceae

Ilex ?colchica As forest

Apiaceae

The Umbelliferae suffered most from lack of suitable literature. Many species were seen in flower and very few were identified, even to genus. The fact most lack fruits at this time of year made identification very difficult.

Prangos ferulacea Recorded?
Scandix pecten-veneris Recorded
Scandix stellata Lunch day 7
Ferula orientalis W of Z?
Turgenia latifolia N of San
Falcaria vulgaris lvs KK to H
Flat species! Greyish felted lvs, central umbel, tulip slope on arrival day, and Ganj etc.

<i>Eryngium</i> sp.	lvs Z to Tk, Tk to Ham, etc.
Gentianaceae	
<i>Gentiana olivieri</i>	Lunch site N of San
Convolvulaceae	
<i>Convolvulus arvensis</i>	Zanjan hotel
<i>Convolvulus</i> sp.	Pink flowers, N of Qazvin roadsides
<i>Cuscuta</i> sp.	A robust yellow species, Caspian coast 2008
Rubiaceae	
<i>Cruciata taurica</i>	M to KK, Ganj, etc.
<i>Galium tricornutum</i>	Common arable weed in Ganj fields
<i>Galium aparine</i>	Recorded
<i>Galium odoratum</i>	Caspian forests
<i>Sherardia arvensis</i>	Below AP
<i>Asperula orientalis</i>	KK to Z, Gil
Boraginaceae	
<i>Alkanna orientalis</i>	TeS
<i>Alkanna</i> sp.	Another yellow flowered species CG
<i>Anchusa arvensis</i>	Scattered records, e.g. Ganj
<i>Anchusa italica</i>	Roadsides
<i>Anchusa</i> sp.	One or more yellow flowered species, e.g. AP
<i>Arnebia pulchra</i>	Below AP
<i>Asperugo procumbens</i>	Breakfast on day 1, KK to Z, etc.
<i>Caccinia macranthera</i>	W of Zan, Ham to Qaz
<i>Cerintho minor</i>	KK to Hesh
<i>Echium amoenum</i>	CG
<i>Echium italicum</i>	Old spikes scattered, and coming into flower N of Q
<i>Heterocaryum szovitsianum</i>	Probably this species Ganj and Ham to Qaz
<i>Lappula barbata</i>	Ganj etc.
<i>Lappula squarrosa</i>	Scattered records
<i>Lithospermum arvense</i>	Widespread, often very small
<i>Moltkia caerulea</i>	Scattered records, Z to Tk, Tk to Ham, H to Q, N of Q etc.
<i>Myosotis alpestris</i>	Locally common, e.g. AP and M to KK
<i>Myosotis ramosissima</i>	Recorded
<i>Nonea caspica</i>	Lunch site on day 7
<i>Nonea pulla</i>	Widespread
<i>Nonea stenosen</i>	N of Q
<i>Onosma albo-roseum</i>	White flowers with pink flush and stripes. Below Pass Z to Tk, and W of San
<i>Onosma setosum</i>	Bright yellow flrs and stiff bristles. KK to Hesh
<i>Onosma tenuiflorum</i>	N of Q, reddish stems, very bristly
<i>Onosma</i> spp.	Others seen were not identified

Paracaryum sp.	Unidentified
Rindera lanata	Gil and Tk to Ham
Rochelia sp.	Lunch site day 7
Solenanthus circinnatus	Gil, nr Tk, etc.
Solenanthus stamineus	Below KP, near Tk etc.

Lamiaceae

Ajuga chamaepitys	Nr. Kive, KK to H
Ajuga austro-iranica?	Beautiful species, white and purple flowers, entire leaves. N of B, H to Q, etc. Correct name?
Salvia hydrangea	N of Bihar
Salvia ceratophylla	Ganj, Gil etc.
Salvia multicaulis	N of Bijar, Ham to Qaz
Lamium amplexicaule	A few records
Lamium album	Recorded
Scutellaria orientalis	Scattered records 2008
Stachys inflata	N of B, 2008
Stachys lavandulifolia	KK to H, Gil, Z to Tk, etc.
Stachys atherocalyx	Near M
Phlomis sp.	A yellow flowered species at the Iris acutiloba site in 2008
Nepeta stenantha	KK area
Acinos arvensis	Tk to Ham
Acinos rotundifolius	Ganj, Gil, etc.
Thymus sp.	In leaf near Takab
Eremostachys laciniata	Widespread, mostly in bud
Eremostachys molucelloides	Day 1 first hillside, day 2, W of Ham, etc.
Lallemantia iberica	KK, KK to Hesh, etc.
Lallemantia sp.	Small brown flrs, N of San
Marrubium persicum?	In leaf Ganj
Teucrium multicaule	H to Q

Scrophulariaceae

Scrophularia chrysantha	Yellow flowers. M to KK, As to AP
Scrophularia olympica	Seen in 2008
Scrophularia spp.	Several other species were seen, e.g. below AP, KK to H, and N of Q
Linaria simplex	Ganj fields etc.
Verbascum orientalis	A very small plant, N of Qaz
Pedicularis comosa	Ganj, KK to H, TeS
Pedicularis sp.	In leaf below KP
Rhynchosorys elephas maxima	Caspian coast, very common, also forest
Lagotis stolonifera	Locally common near Ganj, also TeS
Bungea trifida	N of B, H to Q
Veronica anagallis-aquatica	AP 2008
Veronica beccabunga	Recorded
Veronica persica	Ganj

Veronica gentianoides
Veronica multifida
Veronica polita

In bud below AP
M to KK, etc.
Recorded

Orobanchaceae

Orobanche anatolica
Orobanche ramosa
Orobanche ?lutea
Orobanche ?arenaria
Orobanche sp.

On Salvia. Lunch day 7 and Gil.
Below AP
Small, yellow, on legumes, below AP
Small, purple, on Achillea, H to Q Iris site
Robust, purple and white flrs, hairless, on yellow
composites N of Q
Small grey blue and white hairy flrs with complete
calyx, N of Q
In fine flower near Ganj 2008

Orobanche sp.

Phelypaea tournefortii

Solanaceae

Datura stramonium
Hyoscyamus reticulata
Hyoscyamus niger
Hyoscyamus kotschyanus
Atropa belladonna

2008
Widespread
Ganj
H to Q is this hairy, with flrs like niger, H to Q
In leaf north of As, forest

Plantaginaceae

Plantago lanceolata
Plantago major
Plantago atrata

Recorded
Recorded
M to KK etc.

Caprifoliaceae

Sambucus ebulus

Widespread

Campanulaceae

Legousia pentagonia

N of San

Valerianaceae

Valerianella sp.
Centranthus sp.

Ganj
M to KK

Dipsacaceae

?Small yellow flrs, entire lvs?
Dipsacus fullonum

Dead heads, KK to H

Asteraceae

Artemisia vulgaris
Aster alpinus
Centaurea depressa

Recorded
Seen in 2008
Locally common on roadsides

<i>Cnicus benedictus</i>	Near Kive etc.
<i>Cirsium arvense</i>	Scattered records
<i>Gundelia tournefortii</i>	Widespread in various stages and locally common
<i>Jurinella moschus pinnatisecta</i>	AP locally common, in bud
<i>Scorzonera</i> sp.1	Yellow flowers CG
<i>Scorzonera</i> sp.2	Yellow flowers KK to Z
<i>Scorzonera papposa</i>	Pink flowers, KK to H, Gil etc.
<i>Scorzonera</i> sp.3	Another pink flowered species present
<i>Scorzonera</i> sp.4	Large white flowered species, day 11
<i>Echinops</i> sp.	N of San
<i>Tussilago farfara</i>	Widespread in flower by snow melt etc.
<i>Senecio vernalis</i>	Widespread and very common
<i>Taraxacum officinale</i>	Scattered records
<i>Petasites hybridus</i>	As to AP, forest edge
<i>Silybum marianum</i>	Roadsides S of Chalus
<i>Crupina vulgaris</i>	Scattered records, mostly in leaf. In flower N of
<i>QazAnthemis</i> sp.	Somewhat hairy, Ganj
<i>Chardinia orientalis</i>	Ganj, N of San
<i>Chardinia macrocarpa</i>	Recorded
<i>Tragopogon longirostris</i>	Gil
<i>Amberboa</i> sp.	W of Z
<i>Rhagadiolus stellatus</i>	Presumably this species, scattered records

Monocotyledones

Juncaginaceae

<i>Triglochin palustre</i>	Presumably this species near KK, 2008
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Lemnaceae

<i>Lemna ?minuta</i>	Lunch day 6
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Araceae

<i>Arum italicum</i>	Lunch day 6, and Asalem to pass, in flower
<i>Arum orientale</i>	Lunch day 2

Liliaceae

<i>Eremurus kopetdaghensis</i>	Glabrous, lvs and bracts narrower than <i>E.persicus</i> . In fine flower W of Zanzan and a few Ham to Qazvin.
<i>Eremurus olgae</i>	Seen in 2008 west of Zanzan
<i>Eremurus spectabilis</i>	In early bud N of Bihar, in flower in that area May 2008
<i>Allium scabriscapum</i>	In flower Ham to Qaz 08, Iris meda site. Yellow flowers.
<i>Allium rubellum</i>	1 east of Miyaneh, 2008
<i>Allium paradoxum</i>	Chalus gorge, and M to KK
<i>Allium akaka</i>	This or a similar species, in bud, Gil, Z to Tk pass

<i>Allium shelkovnikovii</i>	In bud, Ch pass nr Takab
<i>Allium noeanum</i>	Lunch 7, several. N of B, etc.
<i>Allium kharputense</i>	In flower east of San
<i>Allium sim. cardiostemon</i>	South of Hamadan 2008
<i>Allium sim. hirtifolium</i>	Zan to Gilvan, but lvs not hairy uns, 2008
<i>Allium hirtifolium</i>	A field full in bud, Z to Tk
<i>Allium spp.</i>	Several other species were present in bud
<i>Gagea confusa</i>	Single flat basal leaf. Locally very common by recent snowmelt, e.g. KP, AP, and a few Sab
<i>Gagea dshungarica</i>	Very small flowers, rounded tepals, buds nodding. Locally very common, Sab, Z to Tk pass, H to Q pass, AP.
<i>Gagea lutea</i>	Single broad basal leaf. KP and below.
<i>Gagea fistulosa</i>	Single hollow basal leaf. Widespread and locally very common by snowmelt. AP +++ , Sab, Gi, Z to Tk pass, etc.
<i>Gagea vegeta</i>	In lumps, broadish lvs ciliate, flowers green o/s. AP.
<i>Gagea alexeenkoana</i>	Grey-green, large flowers. 1 at AP, Pulsatilla site.
<i>Gagea caroli-kochii</i>	A grey and fine plant. Seemingly 1, fits measurements, <i>Ornithogallum orthophyllum</i> site Z to Tk
<i>Gagea reticulata</i>	In clumps, narrow tepals pubescent outside. AP few, H to Q lunch few, Sab. <i>Gagea tenuifolia</i> is a synonym.
<i>Gagea bulbifera</i>	Several at Takht-e-Suleiman.
<i>Gagea stipitata</i>	Single basal lf shorter than infl., lax flrs. 1+ Sab and A few Ham to Q Iris meda site area.
<i>Gagea ova</i>	As above, but shorter, pale yellow flrs, bulbils. Ham to Q, pale flrs, but Iran <i>Gagea</i> paper by Zarrei includes this in <i>stipitata</i> .
<i>Gagea wendelboi</i>	An Alborz endemic, stated as not seen since 2001 in Zarrei paper. 2, W of Z, fitted this species perfectly, but would be a new site considerably west of known range. <i>Gagea gageoides</i> has many bulbils. TeS several, H to Q several.
<i>Gagea setifolia</i>	In fruit, just going over north of Bihar.
<i>Gagea villosa</i>	KP, AP etc. <i>Gagea dubia</i> is a synonym.
<i>Fritillaria imperialis</i>	We encountered a man just west of Bihar with an armful of these, in late bud, gathered from the mountain above.
<i>Fritillaria persica</i>	Locally common in fine flower, a few <i>Allium hirtifolium</i> field Z to Tk, nr Tk locally common, Tk to Ham locally common.
<i>Fritillaria crassifolia kurdica</i>	Locally fine, Gil and Chichaloo
<i>Fritillaria kotschyana</i>	Nominate below KP, in bud. AP, bud, and a few in flower along the tangent road there.

<i>Fritillaria olivieri</i>	In fine flower by river, Gil, although outside known range of the species and possibly something else.
<i>Fritillaria zagrica</i>	A.m. near Tk, a few H to Q pass
<i>Tulipa humilis</i>	Locally common. In leaf Sab, KP fine, pinkish white Gilvan road+, Takab a.m., above Hamadan deep pink, H to Q lunch site white, N of Q white/pink/yellow locally common.
<i>Tulipa biflora</i>	W of Z, 2; fine pass Z to Tk; Tk to H a few; H to Q Iris meda site area
<i>Tulipa montana</i> var. <i>montana</i>	Karaj to Chalus several, 1 group north of B, H to Q
<i>Tulipa montana</i> var. <i>chrysantha</i>	Karaj to Chalus, many
<i>Tulipa systola</i>	Widespread and locally very common.++ KK to Z, +Gil, +Z to Tk, etc.
<i>Tulipa ulophylla</i>	Several at 1 site M to KK
<i>Scilla siberica caucasica</i>	AP locally common
<i>Scilla persica</i>	Lunch site north of San
<i>Ornithogalum arcuatum</i>	
<i>Ornithogalum brachystachys</i>	KK to Z, 2 sites
<i>Ornithogalum sigmoideum</i>	1, lunch day 6, beech forest
<i>Ornithogalum orthophyllum</i>	A few 1 site Z to Tk, near Tk a.m., Tk to Ham, H to Q
<i>Ornithogalum sintenisii</i>	AP +++
<i>Ornithogalum cuspidatum</i>	KK to Z, local, Gil, Tk to Ham
<i>Puschkinia scilloides</i>	Locally very common by snowmely, below KP, AP +++, Gil, Z to Tk.
<i>Muscari comosum</i>	Roadside south of Tk 2008
<i>Muscari caasicum</i>	Widespread, Kive, KK to Z, Gil, Z to Tk, etc.
<i>Muscari longipes</i>	Tk to Ham, e.g. lunch site
<i>Muscari neglectum</i>	Locally common, CG, AP sev, Gil, Z to Tk etc. Many very pale blue, with white teeth, near Ganj With <i>Bellevalia longistyla</i> must have been this species too as no other similar species in Iran. Seemingly very variable.
<i>Bellevalia sarmatica</i>	Common at one site near Takab
<i>Bellevalia longistyla</i>	Locally common near Ganj, KK to Z, Tk to Ham, etc.
<i>Bellevalia longipes</i>	Tk to Ham and possibly elsewhere
<i>Bellevalia olivieri</i>	1 N of B, and 1 at Iris meda site Ham to Qaz
<i>Bellevalia pycnantha</i>	Locally abundant near Ganj, and other scattered records
<i>Danae racemosa</i>	Caspian forest, lunch site day 2
<i>Ruscus hyrcanus</i>	Caspian forests
<i>Polygonatum orientale</i>	As to AP
Colchicaceae	
<i>Merendera trigyna</i>	AP, several
<i>Merendera sobolifera</i>	Near the small lake at Bader Loo, near Takab

Merendera raddeana	AP, several
Colchicum szovitsii	Common on one slope on Gil road, and at the pass between Zan and Tk
Colchicum triphyllum	2 at the KP
Colchicum kotschyi s A	Leaves narrower, not so glossy as C.speciosum. In Fruit below KP and surely elsewhere. Autumn flowering.
Colchicum speciosum	Glossy green leaves, up to 9cm broad. Locally abundant in fruit as at AP. Autumn flowering.

Amaryllidaceae

Galanthus transcaucasicus	AP, a few still in flower, several over
Ixiolirion tataricum	KK to Z a few, Tk to Ham etc.

Iridaceae

Iris acutiloba lineolata	Several fine examples of this very special plant at one site along the Gil road, whereas all had finished flowering there in 2008
Iris aucheri	1 in flower, and one other plant at the Ganj lunch riverside, and many fine Tk to Ham, particularly north of B
Iris hymenospatha	Possibly this species gone over Z to Tk
Iris imbricata	Only very short leaves visible north of KP, in flower in 2008.
Iris meda	Very local but some fine examples seen. A few fine W of Zan, n of Tak (suppressed!), and fine at one site H to Q. In leaf N of Q
Iris reticulata var.reticulata	Several by snow, pass Z to Tk, and Takab area
Iris reticulata var.hyrcana	Common on Sabalan. 1 on AP, by snow.
Iris pseudacorus	Only a few in flower along the Caspian coast, whereas abundant in flower there in mid-May 2008.
Iris pseudocaucasica	c.10 near KK, and a few at Gil
Iris songarica	East of Miyaneh in 2008
Iris spuria musulmanica	East of Miyaneh in 2008
Iris sp.	The species of Iris commonly in leaf on rocky slopes around the Bader Loo lake remains a mystery
Crocus biflorus	Possibly this species, spring flowering but already over, on AP
Gladiolus atrovioleaceus	Widespread but local, e.g. Ganj, nr Give, Z to Tk, near Ham, N of Qaz, etc.
Gladiolus szovitzii	Probably this species, 2 W of Zanjan

Cyperaceae

Eleocharis palustris
Eleocharis quinqueflora

Carex spp. Several present but none positively identified

Juncaceae

Luzula multiflora Below AP

Poaceae

Very many grasses were present but not identified.

Echinaria capitata

Poa bulbosa

Poa annua

Stipa spp.

Orchidaceae

Orchis pinetorum Near M

Orchis mascula Lunch site near M

Orchis pseudolaxiflora Wet meadow near KK in 2008

Dactylorhiza umbrosa Locally common in damp flushes in 2008. Only in leaf this year.

Systematic List Number 2 Butterflies

This list is for the 2008 reconnaissance as well as the 2009 tour. Other than Painted Lady, butterflies were very few and far between in 2009, so most of the following records are from 2008. The systematic order and nomenclature follow the standard work for the country, 'Butterflies of Iran' by Vazrik Nazari, 2003.

Papilionidae

Iphiclides podalirius	Scarce Swallowtail	2008 N of Qazvin. A few 2009.
Papilio machaon	Swallowtail	2008 N of Qazvin. 2009 larva N of Qazvin. Asalem.
Parnassius mnemosyne	Clouded Apollo	2008, Alborz and 30km from Zanjan.

Pieridae

Aporia crataegi	Black-veined White	2008, several along the Gilvan road, north of Qazvin, etc. 2009 a few north of Qazvin.
Pieris brassicae	Large White	Larva in Chalus 2009.
Pieris rapae	Small White	2008 KK to Miy.
Pieris ergane	Mountain Small White	c.30 km from Zanjan 2008.
Pieris pseudorapae	a small white	Hamadan 2008, and recorded 2009.
Pontia callidice	Peak White	1 north of Qazvin 2008.
Pontia edusa	Eastern Bath White	2008, presumably this species but treated as P.daplidice in the Iran fauna.
Euchloe pulverata	a dappled white	2008 KK to Miy.
Anthocharis damone	Eastern Orange-tip	A male north of Qazvin 2008.
Anthocharis gruneri	Gruner's Orange-tip	2008, 2 near Takab.
Colias erate	Eastern Pale Clouded Yellow	2008 KK to Miy.
Colias crocea	Clouded Yellow	A few records both years.
Colias aurorina	Greek Clouded Yellow	2008 KK to Miy.
Colias hyale	Pale Clouded Yellow	2009.
Gonepteryx rhamni/farinosa	Brimstone/Powdered Brimstone	A female in flight 2008.

Lycaenidae

Lycaena phlaeas	Small Copper	2009, nr. Asalem pass.
Lycaena tityrus	Sooty Copper	Zanjan and Takab areas 2008.
Lycaena alciphron	Purple-shot Copper	Probably this species Iris lineolata site 2008.
Lycaena thersamon	Lesser Fiery Copper	2008, KK to Miy, near Zanjan etc.
Lycaena asabinus	a copper	A male north of Qazvin 2009.
Tomares callimachus	a hairstreak	A few records, 2009.
Callophrys suaveola	a green hairstreak	2008, pass near Takab, a few, and 1 near Qazvin. 2009 Z to Tk, 1.
Satyrium abdominalis	a hairstreak	1 north of Qazvin 2008.

<i>Celastrina argiolus</i>	Holly Blue	2008 north of Qazvin, 2009 lunch Ham to Q.
<i>Pseudophilotes vicrama</i>	Eastern Baton Blue	2008, KK to Miy, 1.
<i>Plebejus pylaon</i>	Zephyr Blue	Recorded both years.
<i>Plebejus idas</i>	Idas Blue	2008 north of Qazvin.
<i>Plebejus loewii</i>	Loew's Blue	Zanjan area 2008.
<i>Plebejus eurypilus</i>	Eastern Brown Argus	Recorded 2008.
<i>Plebejus agestis</i>	Brown Argus	Asalam Pass etc. 2008.
<i>Polyommatus semiargus</i>	Mazarine Blue	KK to Miy etc., 2008.
<i>Polyommatus coronus</i>	a blue	Alborz 2008.
<i>Polyommatus thersites</i>	Chapman's Blue	KK to Miy, 2008. H to Q 2009.
<i>Polyommatus icarus</i>	Common Blue	2008 scattered records. 2009 very few.
<i>Polyommatus bellargus</i>	Adonis Blue	2008 Asalem Pass.
Nymphalidae		
<i>Limenitis reducta</i>	Southern White Admiral	1 north of Qazvin 2008.
<i>Vanessa cardui</i>	Painted Lady	Widespread and common 2009, the the only common species. None seen in 2008.
<i>Aglais urticae</i>	Small Tortoiseshell	Alborz and Hamadan area (outside known range?), 2008.
<i>Euphydryas aurinia</i>	Marsh Fritillary	Common at one site north of Qazvin 2008.
<i>Melitaea cinxia</i>	Glanville Fritillary	Widespread 2008. Very locally common.
<i>Melitaea trivia</i>	Lesser Spotted Fritillary	2008
<i>Melitaea gina</i>	a spotted fritillary	2008
<i>Melitaea persea</i>	a spotted fritillary	2008
<i>Melitaea interrupta</i>	a spotted fritillary	2008
<i>Argynnis pandora</i>	Cardinal	Presumably this species seen briefly above Hamadan, 2008.
<i>Issoria lathonia</i>	Queen-of Spain Fritillary	2008, 1 Alborz, and N of Qazvin. 2009 near KK, and N of Q.
Satyridae		
<i>Pararge aegeria</i>	Speckled Wood	Recorded 2009
<i>Lasiommata megera</i>	Wall Brown	North of Qazvin 2008. transcaspica
<i>Lasiommata maera</i>	Large Wall Brown	North of Qazvin 2008.
<i>Coenonympha saadi</i>	a heath	2008, Zanjan to Takab, north of Bijar.
<i>Coenonympha pamphilus</i>	Small Heath	2008, 1 only, Alborz.
<i>Hyponephele lupina</i>	Oriental Meadow Brown	KK to Miy 2008.
<i>Hyponephele</i> sp.	meadow brown sp.	A rather plain species between Hamadan and Qazvin, 2008.
<i>Proterebia afra</i>	Dalmatian Ringlet	Pass near Takab 2008, 1 or 2.

Melanargia hylata	a marbled white	2008, a few at Iris lineolata site, several north of Takab, Hamadan to Qazvin. 2009 only 1, north of San.
Satyrus iranicus	a satyr	A few north of Bijar 2008.
Chazara persephone	a hermit	Several at one site between Hamadan and Qazvin, 2008.
Pseudochazara pelopea	a grayling	Possibly this species at Asalem Pass, persica 2008.
Pseudochazara thelephassa	a grayling	Hamadan to Qazvin 2008.
Hesperiidae		
Eogenes alcides	a skipper	2009.
Thymelicus novus	a small skipper	Near Bijar 2008.
Carcharodus alceae	Marbled Skipper	Lunch N of Q, 2009.
Spialia phlomidis	Persian Skipper	c.30 km from Zanjan 2008.
Pyrgus melotis	a grizzled skipper	North of Qazvin 2008.
Pyrgus sp.		Asalem Pass 2008.

Systematic List Number 3 Birds

Cormorant	<i>Phalacrocorax carbo</i>	Caspian coast
Night Heron	<i>Nycticorax nycticorax</i>	A few, Caspian coast 2008
Cattle Egret	<i>Bubulcus ibis</i>	Caspian coast
Little Egret	<i>Egretta garzetta</i>	Caspian coast
Great White Egret	<i>Casmerodius albus</i>	Caspian coast
White Stork	<i>Ciconia ciconia</i>	1 north of Sanandaj 2009
Egyptian Vulture	<i>Neophron percnopterus</i>	3 in the Takab area
Black Kite	<i>Milvus migrans</i>	A few records
Short-toed Eagle	<i>Circaetus gallicus</i>	1 each year
Golden Eagle	<i>Aquila chrysaetos</i>	Sabalan and Takab area 2008
Common Buzzard	<i>Buteo buteo</i>	Rather scarce
Long-legged Buzzard	<i>Buteo rufinus</i>	A few records both years
Sparrowhawk	<i>Accipiter nisus</i>	1 in 2008
Common Kestrel	<i>Falco tinnunculus</i>	Widespread
Chukar	<i>Alectoris chukar</i>	Widespread, usually in pairs. 7 days in 2009.
Corncrake	<i>Crex crex</i>	An important record in 2008, along the Gilvan road, in unusually dry open habitat, came within a few inches of me. On passage?Breeding?
Common Redshank	<i>Tringa totanus</i>	A pair at Bader Loo 2009
Wood Sandpiper	<i>Tringa glareola</i>	4 near Zanzan 2009.
Common Sandpiper	<i>Actitis hypoleuca</i>	1 on the pass between Zanzan and Gilvan, 2008 and 2009. Also Chichaloo 2009.
Black-headed Gull	<i>Larus ridibundus</i>	Caspian coast
Armenian Gull	<i>Larus armenicus</i>	Caspian coast
Rock Dove	<i>Columba livia</i>	Widespread - both feral and wild forms
Wood Pigeon	<i>Columba palumbus</i>	Scattered records
Collared Dove	<i>Streptopelia decaocto</i>	Scattered records
Laughing Dove	<i>Streptopelia senegalensis</i>	Scattered town etc. records
Cuckoo	<i>Cuculus canorus</i>	Widespread in small numbers, often on wires
Little Owl	<i>Athene noctua</i>	1 in 2008, 3 in 2009.
Common Swift	<i>Apus apus</i>	Widespread
European Bee-eater	<i>Merops apiaster</i>	Widespread and common
Roller	<i>Coracias garrulus</i>	Widespread and reasonably common
Hoopoe	<i>Upupa epops</i>	Widespread and reasonably common
Great Spotted Woodpecker	<i>Dendrocopos major</i>	1 below Asalem Pass 2009
Syrian Woodpecker	<i>Dendrocopos syriacus</i>	Bader Loo in both years
Desert Lark	<i>Ammomanes deserti</i>	Near Zanzan 2008
Calandra Lark	<i>Melanocorypha calandra</i>	Scattered records

Bimaculated Lark	<i>Melanocorypha bimaculata</i>	Very common
Short-toed Lark	<i>Calandrella brachydactyla</i>	Scattered records
Lesser Short-toed Lark	<i>Calandrella rufescens</i>	Scattered records
Crested Lark	<i>Galerida cristata</i>	Widespread
Skylark	<i>Alauda arvensis</i>	Scattered in the north. Nesting near Ganjgah.
Woodlark	<i>Lullula arborea</i>	Scattered records.
Shorelark	<i>Eremophila alpestris</i>	Widespread in high mountains. Numerous on Sabalan where a flock of 100+.
Crag Martin	<i>Ptyonoprogne rupestris</i>	Widespread
Swallow	<i>Hirundo rustica</i>	Widespread
House Martin	<i>Delichon urbica</i>	A few records
Tawny Pipit	<i>Anthus campestris</i>	A few records
Tree Pipit	<i>Anthus trivialis</i>	Below Asalem Pass 2009
Water Pipit	<i>Anthus spinoletta</i>	Higher altitudes
Yellow Wagtail	<i>Motacilla flava</i>	Ganjgah area, subspecies?
Grey Wagtail	<i>Motacilla cinerea</i>	Scattered records
White Wagtail	<i>Motacilla alba</i>	Widespread in small numbers
Wren	<i>Troglodytes troglodytes</i>	Caspian forest below Asalem Pass 2009
Dunnock	<i>Prunella modularis</i>	1 below Asalem Pass 2009
Radde's Accentor	<i>Prunella ocularis</i>	Alborz 2008, Sabalan 2009
Alpine Accentor	<i>Prunella collaris</i>	2 Asalam Pass, 2009
Robin	<i>Erithacus rubecula</i>	Caspian Forest 2009
Nightingale	<i>Luscinia megarhynchos</i>	Sometimes heard in suitable habitat
Bluethroat	<i>Luscinia svecica</i>	2 males on Sabalan 2009
White-throated Robin	<i>Irania gutturalis</i>	A few records, e.g. below Asalem Pass, and Takab area
Black Redstart	<i>Phoenicurus ochruros</i>	Scattered records
Common Redstart	<i>Phoenicurus phoenicurus</i>	Scattered
Whinchat	<i>Saxicola rubetra</i>	Scattered
Stonechat	<i>Saxicola torquata</i>	A few records
Isabelline Wheatear	<i>Oenanthe isabellina</i>	Widespread and reasonably common
Northern Wheatear	<i>Oenanthe oenanthe</i>	Widespread, common in the Alborz
Pied Wheatear	<i>Oenanthe pleschanka</i>	Scattered records
Black-eared Wheatear	<i>Oenanthe hispanica</i>	Widespread in small numbers
Finsch's Wheatear	<i>Oenanthe finschii</i>	Scattered
Red-tailed Wheatear	<i>Oenanthe xanthopyrna</i>	Zanjan to Takab 2008
Rock Thrush	<i>Monticola saxatilis</i>	Several at higher altitudes 2008, 2009 only Kandavan Pass
Blackbird	<i>Turdus merula</i>	Only on two days 2009-08-18
Mistle Thrush	<i>Turdus viscivorus</i>	2 below Asalem Pass 2009
Cetti's Warbler	<i>Cettia cetti</i>	Heard occasionally, e.g. Bader Loo
Moustached Warbler	<i>Acrocephalus</i>	West of Zanjan 2008 melanopogon
Reed Warbler	<i>Acrocephalus scirpaceus</i>	West of Zanjan 2008
Great Reed Warbler	<i>Acrocephalus arundinaceus</i>	Bader Loo 2008

Olivaceous Warbler	<i>Hippolais pallida</i>	Zanjan hotel grounds both years
Lesser Whitethroat	<i>Sylvia curruca</i>	Zanjan hotel grounds 2009
Common Whitethroat	<i>Sylvia communis</i>	A few records
Blackcap	<i>Sylvia borin</i>	A pair below Asalem Pass 2009
Chiffchaff	<i>Phylloscopus collybita</i>	Zanjan hotel grounds 2008
Willow Warbler	<i>Phylloscopus trochilus</i>	Recorded 2009
Spotted Flycatcher	<i>Muscicapa striata</i>	On 2 days in 2009
Penduline Tit	<i>Remiz pendulinus</i>	Nesting at Bader Loo both years
Sombre Tit	<i>Parus lugubris</i>	1, Caspian Forest below Asalem Pass, 2009
Great Tit	<i>Parus major</i>	Only on 1 day each year
Eastern Rock Nuthatch	<i>Sitta tephronata</i>	North of Qazvin 2009, also 1 day in 2008
Western Rock Nuthatch	<i>Sitta neumayer</i>	North of Qazvin and near Takab 2009, also 1 day in 2008
Golden Oriole	<i>Oriolus oriolus</i>	West of Ganjgah 2009, on 2 days 2008
Red-backed Shrike	<i>Lanius collurio</i>	Scattered records
Lesser Grey Shrike	<i>Lanius minor</i>	Widespread
Woodchat Shrike	<i>Lanius senator</i>	1 north of Qazvin 2008
Magpie	<i>Pica pica</i>	Widespread and common
Alpine Chough	<i>Pyrrhocorax graculus</i>	Kandavan Pass
Chough	<i>Pyrrhocorax pyrrhocorax</i>	Kandavan Pass and Sabalan
Rook	<i>Corvus frugilegus</i>	Locally very common, some very large rookeries
Hooded Crow	<i>Corvus corone cornix</i>	Widespread and common
Raven	<i>Corvus corax</i>	Widespread
Starling	<i>Sturnus vulgaris</i>	Widespread
House Sparrow	<i>Passer domesticus</i>	Common around habitation
Tree Sparrow	<i>Passer montanus</i>	A few records
Rock Sparrow	<i>Petronia petronia</i>	Scattered records
Pale Rock Sparrow	<i>Petronia brachydactyla</i>	Takab area
Snow Finch	<i>Montifringilla nivalis</i>	Kandavan 2008, Sabalan 2009
Chaffinch	<i>Fringilla coelebs</i>	Caspian forests
Red-fronted Serin	<i>Serinus pusillus</i>	Near Hamadan 2008
Goldfinch	<i>Carduelis carduelis</i>	Scattered records
Siskin	<i>Carduelis spinus</i>	Below Asalem Pass
Linnet	<i>Carduelis cannabina</i>	Widespread
Twite	<i>Carduelis flavirostris</i>	East of Takht-e-Suleiman
Desert Finch	<i>Rhodopechys obsoleta</i>	North of Bijar 2009
Trumpeter Finch	<i>Bucanetes githagineus</i>	Near Hamadan 2008
Common Rosefinch	<i>Carpodacus erythrinus</i>	A few records
Hawfinch	<i>Coccothraustes</i>	1 in 2008, Caspian forest
Rock Bunting	<i>Emberiza cia</i>	A few records
Ortolan Bunting	<i>Emberiza hortulana</i>	Takab and Qazvin areas
Grey-necked Bunting	<i>Emberiza buchanani</i>	1 north of Qazvin
Black-headed Bunting	<i>Emberiza melanocephala</i>	Locally common
Corn Bunting	<i>Miliaria calandra</i>	Scattered

Systematic List Number 4 Amphibians, Reptiles and Mammals

Common Frog?	<i>Rana temporaria</i> ?	Asalem Pass
Green Frog sp.	<i>Rana</i> sp.	Scattered records
Toad sp.	<i>Bufo</i> sp.	Khalkhal guesthouse
Spur-thighed Tortoise	<i>Testudo graeca</i>	A few records
Caucasian Agama	<i>Laudakia caucasica</i>	Scattered records
	<i>Eremias trauchi</i>	
	<i>Lacerta brandti</i>	
Snake-eyed Lizard	<i>Ophisops elegans</i>	Widespread
Montpellier Snake	<i>Malpolon monspessulanus</i>	1 on day 5
Caspian Whip Snake	<i>Coluber jugularis erythrogaster</i>	One dead individual
Mediterranean Mole	<i>Talpa caeca</i>	Hills, Asalem Pass
Wild Boar	<i>Sus scrofa</i>	Rooting seen in forests
Cape Hare	<i>Lepus capensis</i>	1 on Sabalan
Fulvous Ground Squirrel	<i>Spermophilus fulvus</i>	Several in Zanzan area and near Qazvin
Fox	<i>Vulpes vulpes</i>	2 in Zanzan area

Animals where signs noted (no sightings of actual animals)

Wolf	<i>Canis lupus</i>	A dropping on Sabalan
Snow Vole	<i>Chionomys nivalis</i>	Diggings and holes at higher altitudes