

# Alpine Flowers of the Tien Shan

Naturetrek Tour Report

11 – 23 June 2016

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*Paraquilegia anemonoides*



*Tulipa kaufmanniana*



*Dracocephalum grandiflorum*



*Primula minkwitziae*

Report and images compiled by David Morris

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Tour Participants: David Morris (Leader) and Vladimir Epiktetov (Local botanist) with six Naturetrek clients

## Day 1

Saturday 11th June

Today most of the group boarded our Turkish airline flights from London Gatwick and travelled to Almaty via Istanbul.

## Day 2

Sunday 12th June

The four members of the group and David, who had travelled from London, arrived into Almaty at just after 5.30am. After a short delay in getting through passport control, we met our local botanist, Vladimir, and our interpreter, Amelia, who would be with us for the duration of our trip. We boarded our comfortable minibus and headed through the leafy streets of Almaty, noting numerous Common Mynas as we went to pick up Robert and Patricia who had arrived the previous day, before we headed on towards the imposing snow-capped peaks of the Tien Shan Mountains. As we entered the Ile-Alatau National Park, the road started to climb through the foothills, quickly gaining altitude as we travelled along. Roadside slopes and hillsides were covered in a profusion of the yellow flower spikes of the robust *Ligularia macrophylla* and large sprawling bushes of *Rosa fedtschenkoana* were covered in bright white blooms. We arrived at our mountain lodge, nestled in the high altitude pine forests of the endemic *Picea schrenkiana*, where we settled into our rooms and had a couple of hours' rest.

By late morning, with the sun now shining brightly, we walked from our accommodation up the valley towards Big Almaty Lake. As soon as we left our guesthouse, we were fully amongst the flower-rich mountain meadows of the Tien Shan, giving plenty of opportunity to acquaint ourselves with the flora of the region. Sheltered grasslands held white-flowered *Anemone narcissiflora* ssp. *protracta*, *Astragalus alpinus*, orange *Erigeron auranticus*, an attractive pea *Lathyrus gmelinii*, the dainty annual *Androsace septentrionalis*, plus three species of shrubby *Lonicera*. We noted both endemic trees *Betula tianschanica* and flowering *Sorbus tianschanica*, plus the historic parent of the domestic apple, *Malus sieversii*. We scrambled up through rocky woodland finding *Goodyera repens* and a trio of attractive *Primulaceae* in the form of *Primula matthioli* ssp. *brotheri* with its attractive purple nodding bells, *Primula algida* and a single specimen of *Primula kaufmaniana*.

We enjoyed a leisurely picnic lunch noting *Papaver croceum* and birdlife including Hume's Leaf Warbler, Red-mantled Rosefinch, Grey-headed Goldfinch and Red-fronted Serins. After lunch we headed on further up the valley, noting the nodding *Pulsatilla campanella*, the attractive pink dandelion *Taraxacum pseudorozeum* and a lilac-flowered compact brassica, *Chorispora bungeana*. By late afternoon we headed back to our lodge to freshen up before enjoying a substantial traditional evening meal.

## Day 3

Monday 13th June

We woke to a fine bright day with the surrounding snow-capped peaks lit up well by the warming morning sun. After a breakfast including local rice porridge, we set off up the valley to explore the species and habitats around Big Almaty Lake. We set off towards the dam, passed the border guard checkpoint and onto the dam wall before heading down a track around the lakes western shore. On the dam we found *Scrophularia kiriloviana*, *Polygonum rupestre*, profusely flowering *Oxytropis globiflora* and a nice, but unknown species of *Lappula* with sky blue flowers. On a rocky hillside adjacent to the track we found a single spike of *Dactylorhiza umbrosa*, *Leontopodium fedtschenkoanum*,

purple-flowered *Campanula glomerata* and the tiny *Gentiana karelinii*. It wasn't just good plants: in the scrubby pines and junipers we found Black-throated Accentor, a smart male Guldenstadt's Redstart, White-browed Tit Warbler, Hume's Whitethroat and Oriental Turtle Dove. As the track descended towards the lake, a free-draining sunny scree contained *Allium atrosanguineum*, *Doronicum turkestanicum*, and the attractive orange *Erysimum croceum*, a Kazakhstan red book species. At the end of the reservoir we found several Ruddy Shelduck and a pair of Ibisbill on the braded riverbed as it joined the lake.

Lunch was enjoyed overlooking the lake from a raised elevation where we saw a pair of chunky White-winged Grosbeak and an obliging Red Squirrel. After lunch we explored the area above the tree line, which consisted of floristic open meadows with a scattering of *Juniperus sibirica* and *Juniperus pseudosabina* scrub and plenty of butterflies on the wing in the warm afternoon sun. In the turf we found Frog Orchid, *Dactylorhiza (Coeloglossum) viridis*, *Valeriana turkestanica* and our fourth honeysuckle for the trip with prostrate and woody *Lonicera olgae*. By late afternoon we dropped some of the group at the lodge, and the rest of us explored a meadow a little lower down the valley, noting *Codonopsis clematidea*, *Iris alberti*, and a hillside covered in *Rheum tianschanicus*, *Ligularia macrophylla* and *Eremurus altaicus*. We returned to the lodge for an evening meal and to complete the daily log.

## Day 4

Tuesday 14th June

Another fine day greeted us, so after breakfast we headed up above Big Almaty Lake to spend the day botanizing around the former Soviet cosmotation. Our first foray onto the turf in the alpine zone was truly amazing, with a riot of colour breaking through, following the recent retreat of melting snow. Bright white *Callianthemum alataicum* was in full bloom along with *Ranunculus alberti*, purple and cream *Viola altaica*, *Gagea serotina* and compact mats of *Rhodiola coccinea*. Stars of the show were the carpets of yellow-flowered *Tulipa dasystemon* and *Tulipa heterophylla*. We explored the lower slopes finding *Eritrichium tianschanicum* and adjacent to lingering snow patches we found two delightful members of the *Ranunculaceae*: *Oxygraphis glacialis* and *Trollius lilacinus*. We pushed up the slope to about 3,400m altitude where we found impressive old cushions of tight flowered *Smelowskia calycina*. Growing through the cushions were a number of interesting alpinines including *Draba altaica*, *Smelowskia calycina* and *Saxifraga macrocalyx*. Most of the group headed back down the slope, but a small number of us headed to the summit at 3,590m where we found *Saxifraga oppositifolia*, *Androsace lehmanniana* and *Pedicularis violascens* growing in the stony wind-clipped turf.

Lunch was enjoyed back by the minibus where groups of Alpine Chough flew overhead, going back and forth into the old abandoned buildings where they were nesting. After lunch we headed back down the road a short way where we spotted mauve flowers growing on some nearby north facing rocks. We scrambled up and across a small rocky scree to find a mass of perfectly flowering *Paraquilegia anemonoides* on the rocks around us. With us all feeling a little tired from an excellent day botanising in the high alpine zone, we headed back down the pass, stopping briefly to see a stunning clump of dark blue *Dracocephalum grandiflorum*. The evening was completed with a meal, glass of wine and completing the daily plant checklist.

## Day 5

Wednesday 15th June

On our final day in Ile-Alatau National Park we headed back up towards the Zhusalykezen Pass and stopped to do a spot of plant hunting on the slopes above the observation station. We stopped at the checkpoint where the young border guard thoroughly checked our documents before we were allowed to proceed. We parked up a short distance further on and walked up a small valley with a well-eroded riverbed. One of the first plants we came across

was the impressive thistle *Schmalhausenia nidulans*, a scarce red data book species in Kazakhstan. The turf featured many of the alpenines we encountered yesterday including plenty more tulips. New species here included *Lagotis integrifolia* and *Pedicularis oederi*. Mammals here were quite good with Red Fox, Stoat and numerous Grey Marmots that posed for us to get photos. Birds included White-winged Grosbeak, Water Pipit, Brown Accentor and Golden Eagle circling over a nearby peak. By mid-day, we headed a short way back down the pass to our lodge to have lunch and load up the bus before we departed back towards Almaty.

We headed down the pass and valley in the direction of Almaty, stopping in the foothills near the debris-control dam noting *Eremurus tianschanicus*, *Eremurus robustus*, *Ligularia heterophylla* and *Iris alberti* in seed. Vladimir and David had pre-arranged to meet up with leading central Asian botanist Anna Ivashenko, where we were able to purchase signed copies of her book on the flora of Kazakhstan and accompanying field guide. With the afternoon drawing in, we headed to the station where we boarded our overnight sleeper train to Tyulkubas. We settled in our cosy cabins where we had dinner as the train passed through the vast Kazakh steppe. Out on the plains, nomadic herders rounded up their stock in this vast open landscape. With the sun setting, we settled down for the night in preparation for tomorrow and the start of exploring Aksu-Dzhabagly nature reserve to the west.

## Day 6

Thursday 16th June

We woke on our sleeper service to Tyulkubas with the mist over the steppe burning off in the warming morning sun. The lofty peaks of the Tien Shan rose dramatically off the plain to the south, glistening white with snow. We were met by our host at the station and, with luggage loaded, we headed off to Zhabagly where we settled in our comfortable guesthouse. The accommodation was nestled in a well-wooded garden with lots of bird activity around us. Common Mynas, Jackdaws and groups of noisy Rosy Starlings were all nesting in buildings and within boxes around the property. Nightingales sang and Oriental Turtle Doves trotted around the lawn. We had a cooked breakfast at our lodge before travelling east for the day to explore the Kok Sai canyon on the edge of Aksu-Zhabagly nature reserve.

The drive east over the edge of the vast Kazakh steppe took about two hours, with the mighty peaks of the Tien Shan following us all the way providing a dramatic backdrop to our day. After negotiations with border guards, we continued to the canyon to find a vast geological depression in the otherwise flat steppe with a river running through the bottom. Large conglomerate cliffs and stacks lined the valley sides making it look like a set from an Indiana Jones film. The adjoining steppe thronged with insects and covered in the blooms of early summer flowers. Yellows in the colour palette included *Brassica elongata*, *Handelia trichophylla* and the everlasting *Helichrysum maracandicum*. Blues and magentas came from *Gentiana olivieri*, *Centaurea depressa* and the globular flower heads of both *Allium caesium* and *Allium barsezewskii*.

We headed down to explore the shingle scree flanks of the canyon; in the thin soils we found the tall pink spires of *Eremurus tianschanicus*, pink mats of flowering *Dracocephalum diversifolium*, prostrate *Echinops tschimganicus* and a couple of fading *Iris willmottiana* from the Juno section. Black stork and Egyptian Vulture circled overhead as we botanised on the slopes. As we climbed out of the canyon, we were met by a traditional Kazakhstani horseman and his herd of horses and cattle who was very pleased to be asked to pose for a photo. With a thunderstorm moving in overhead, we headed back to the bus to have our picnic lunch out of the rain shower.

As the afternoon cleared, Red-headed Buntings and Calandra Larks started to sing, so we headed a bit further up the Canyon adjacent to the Kyrgyzstan border. At the top of the canyon we found masses of *Gentiana olivieri*, *Rosa fedtschenkoana* and *Linum pallescens*. With the day drawing in, we headed back to the guesthouse to have dinner of locally caught fish.

## Day 7

Friday 17th June

As forecasted, today we woke to rain, which was predicted to be fairly torrential at higher altitudes, so we adjusted our itinerary to explore the mountain flora at lower elevations on foot and by 4WD. The climate was pleasant: overcast yet mild, so we set off walking up a track into the heart of Aksu-Dzhabagly nature reserve where we found a good selection of butterflies on the wing. Wild apple, *Malus sieversii*, Hawthorn, *Crataegus turkestanica* and *Juniperus seravschanica* where the most frequent shrubs on the slope, home to many musical singing nightingales. Hobby and a stunning male Golden Oriole perched in a nearby tree added to the bird interest of the day. Three species of large and robust members of the *Apiaceae* were common trackside plants with *Ferula tenuisecta*, *Ferula penninervis* and *Prangos pabularia* all looking like large yellow-flowered angelicas. Sprawling bushes of *Rosa kokanica* and *Rosa fedtschenkoana* were in full bloom on the valley sides. The diverse and herb-rich sward was full of a range of colours and species of flowering plants. Blue spires of *Delphinium confusum*, White Hollyhock, *Alcea nudiflora*, pink *Phlomis salicifolia* and the delightful bells of *Codonopsis clematidea* put on a fine display. *Iris sogdiana* was all the way along our route into the mountains, being in seed at the start of the walk, then with numerous flowering plants pleasing Ken towards our lunch stop. Amongst the growing herbaceous plants, we found large quantities of *Tulipa greigii* in seed giving a hint of what the area would have been like a month before.

By midday the rain arrived so we continued a short distance to Kishi-Kaindy, a small mountain house where we arrived to a lit fire and enjoyed our picnic lunch and hot tea, sheltered out of the worst of the rain. With picnic lunch finished and the rain easing off, we headed back down the mountain track in low cloud, which cleared in patches to give us views of river valleys, distant steppes and lofty snow-capped peaks. At the end of the afternoon, we visited the nature reserve museum in Zhabagly village where a young park official gave us chapter and verse on the reserves wildlife, history and archaeology in perfect English. With most of the group damp from the day's rain, we headed back down to our comfortable guesthouse for a warming shower, dinner and a good night's sleep.

## Day 8

Saturday 18th June

Today we woke to blue skies and sun, so after breakfast we packed our bags, boarded our 4WD vehicles and headed up to Ulken-Kaindy mountain house, nestled beneath the peaks of some of the large peaks of Aksu-Dzhabagly nature reserve. Our outing for today was to walk up the Ulken-Kaindy valley from the alpine meadows around the lodge to the start of the alpine zone at the head of the valley. We started walking through lush vegetation of *Ligularia talassica*, *Delphinium confusum* and *Thalictrum flavum* around the river, before crossing it to find *Dactylorhiza umbrosa* and *Primula matthioli* ssp. *turkestanica*. The stream banks were covered in *Ferula renardii*, *Rosa alberti*, *Rosa hissarica* and the abundant seed heads of *Tulipa kaufmanniana*.

Lunch was enjoyed in the valley bottom amongst the blooms, as we observed Siberian Ibex clambering on the craggy peaks above. Scree slopes along the valley sides held *Ixiolirion tataricum*, *Dictamnus albus*, *Eremurus regelii* and several Apollo butterflies, nectaring and on the wing. The head of the valley became increasingly narrow and rocky; it was here that the start of the alpine vegetation zone truly started. *Campanula capusii*, *Campanula alberti* and

*Euphorbia humilis* clung to the rocks. Those members of the group who had managed to make it to this point explored a cool gorge, still with patches of melting snow present. *Primula minkwitziae*, *Androsace sericea*, *Trollius altaicus*, *Viola biflora*, *Corydalis gortschakovii* and pale blue *Paraquilegia caespitosa* all adorned the shady cliffs and crevices. A pair of Common Rock Thrushes with recently fledged young posed nicely on the rocks. By late afternoon we headed back down the valley and returned to the mountain house where we had our evening meal and watched a glorious evening sunset.

## Day 9

Sunday 19th June

Again we woke to another fine and sunny day, so we headed to the top of the Ulken-Kaindy pass on horseback to appreciate some of the higher elevation alpine in the nature reserve. After a filling breakfast and a lesson on how to control your horse, we saddled up and mounted our docile horses, setting off up the mountain in convoy. We rode through the alpine meadows, full of colour and with the scrub full of singing Whitethroats and Nightingales. The horses easily allowed us to reach our destination; a flower-rich alpine plateau with outstanding views over the Tien Shan range into the heart of Aksu-Dzhabagly nature reserve. With patches of snow only just clearing, the turf was ablaze with colour from thousands of blooming tulips. Masses of yellow and red *Tulipa kaufmanniana* were in bloom, with good number of the slightly smaller *Tulipa dasystemonoides*, and the deeper-soiled hollows of the plateau were covered in yellow *Allium fedtschenkoanum* and stunning orange carpets of *Trollius altaicus*. On the exposed stony ridgeline, cushions of super-floriferous *Androsace sericea* were joined by *Aster alpinus*, *Gagea filiformis*, *Lindelofia tschimganica* and *Pyrethrum pyrethroides*.

Lunch was enjoyed overlooking snow-capped peaks, the realm of the Snow Leopard, but despite our best efforts of looking for them, a view of one would have been in reality a very remote opportunity. A pair of Black Vultures circled overhead, Lammergeier drifted over and Hobbies hawked for insects over the sheltered slopes. After lunch we opted to travel back to our mountain house on foot exploring the flora on our descent. The south-facing screes contained a range of interesting plants; prickly pink *Oxytropis echidna*, *Allium karataviense* and *Macrotomia euchroma*. Our botanising in this area inadvertently flushed three Himalayan Snowcock, Chukar with chicks and a roosting European Nightjar. By late afternoon we paused to rest in a meadow above our lodgings, taking in the scenery and plants in the afternoon sun. With the day drawing in, we headed back the short distance to have an evening meal and a well-earned rest.

## Day 10

Monday 20th June

It was our final day within the core of Aksu-Dzhabagly nature reserve, which started sunny and cloudless again, boding well for another enjoyable day of botanising. Common Myna, Oriental Turtle Dove and White-crowned Penduline Tit were all busy with nesting around our mountain cabin and we found *Pyrola rotundifolia* on the banks for the nearby stream where we gathered our water. After breakfast we packed our bags to be picked up by 4WD, along with a couple of members of the group who were feeling a little tired. The rest of us set off back down the river valley through the flower-filled meadows with the dramatic peaks surrounding us. Good displays of *Delphinium confusum* lined our route and a number of *Iris sogdiana* were still blooming, keeping *Iris*-enthusiast Ken happy.

The meadows lifted with butterflies of various species and White-winged Grosbeaks and White-capped Buntings flitted around in the *Juniperus polycarpus* var. *seravshanica* scrub. By midday we approached our lunch spot at Kshi-Kaindy mountain house where we found *Morina kokanica* and *Polygonatum severzovii*. We met up with the rest of the

group and had lunch, before most of us took the 4WD back to our guesthouse in Zhabagly. Robert, Patricia and Sheila opted to walk the final 7km back to the village. Following a relaxing afternoon at our guesthouse, we completed the daily plant list and had our evening meal before a relaxing night's sleep.

## Day 11

Tuesday 21st June

On our final day exploring Aksu-Dzhabagly nature reserve, we headed slightly east to visit Aksu Gorge. The Central Asian Biodiversity Project picked us up in their 4WD minibus to visit this part of the nature reserve. As we climbed up a rough track from the steppe, we were paused from proceeding due to excavators widening and re-routing our track. After a short wait and a good deal of use of the minibus horn, we proceeded to visit the higher-elevation steppe plateau above that gave commanding views across the plains and broad valley towards the Karatau Mountains. Behind us were the high snow-capped peaks of the Tien Shan.

The Mediterranean flora had been out for a few weeks here, but there were still some blooms left on show. *Cousinia umbrosa*, *Centaurea squarrosa*, *Rosa maracandia* and *Rosa nanothamnus* were all in bloom and the seed heads of various bulbs were much in evidence, including *Ungernia severzowii*, *Tulipa greigii* and *Tulipa bifloriformis*. Plant of the day for many was the beautiful rose-relative, *Rosa persica* with its distinctive, deep red inner and rich yellow outer areas of the petals. We continued on for a short distance before reaching Aksu Gorge where we had our picnic lunch in the garden of the reserve base. After lunch we took a short walk around the edge of the impressive gorge, descending a short way into it to find a range of plants. Floriferous cushions of Campanula-relative *Sergia severzowii* were clinging to the warm rocks, as was the intriguing yellow *Scutellaria immaculata*. On the warm, gently sloping rocky slopes of the gorge grew yellow *Allium eriocoleum*, robust bushy *Salvia sclarea* with its distinctive pink flowers and bracts, plus a pink and thorny member of the Goosefoot family, *Rhaphidophyton regelii*. As we ascended back to the top, we watched a pair of Hobbies feeding on the large number of dragonflies hawking over the slopes.

By late afternoon we headed back to our hotel to have an early evening meal and shower, before going to the local station to catch the overnight sleeper train back to Almaty.

## Day 12

Wednesday 22nd June

After our arrival on our overnight sleeper into Almaty, we were picked up and taken to our hotel where we would spend our final night in Kazakhstan. After a filling breakfast, we headed back up into the foothills of the Tien Shan at the edge of Ile-Alatau National Park to visit the garden and nursery of our local guide and botanist Vladimir. The road left the suburbs of Almaty below and wound its way up through the lush vegetation and forest to reach our destination, giving us great views over the city and bigger peaks of the Tien Shan.

The half-hectare sloping plot, located at about 1,500m, was a real plantsman's garden with a vast array of choice trees, shrubs, perennials and bulbs, many of which were endemic to Kazakhstan and nearby parts of central Asia. Squeezed in were some 600 conifers and their cultivars including *Abies semenovii* 'Epiktetov', found by Vladimir in Kyrgyzstan in 2011. Another native apple to Kazakhstan, *Malus nidwetzkyana* was also of interest to the group with its distinct pink flower (although this specimen had finished blooming) and bright pink seeds inside the apple. Bulbous flora is a particular interest of Vladimir's and he had an impressive collection of 20 species of *Tulipa* and over 200 *Allium* taxon, 60 of which are native to Kazakhstan, including one he showed us that was new to science

and yet to be fully described. Mingled in one of the beds, we found *Hepatica falconerii*, a Kazakh red book species and a wonderful early spring woodlander.

A generous lunch spread was enjoyed in Vladimir's open, yet sheltered tea house, nestled in the garden beneath the shade of Birches and other specimen trees. Over lunch we recounted our enjoyable memories of the trip, species highlights and best finds. It was also at this point of the trip that we were to have to say our farewells to Vladimir who had joined us for the entire trip, bringing a wealth of local and botanical knowledge and patience to boot. With contact details shared, we headed back onto the bus and made our way back down the hillside into the centre of Almaty where we visited a local part of the city, with a colourful Russian Orthodox church and imposing war memorial commemorating Kazakh lives lost during the war. With the day drawing to a close, we headed back to our city-centre hotel where we enjoyed a fantastic final 3-course meal and recounted further memories of the trip.

## Day 13

Thursday 23rd June

With a reasonably early flight from Almaty back to London, via Istanbul, we were picked up in the small hours of the morning by Amelia and our driver for the short journey to the airport. With us all checked in, we said goodbye to Amelia before settling into the departure lounge to await our departure. Novelty items bought in duty free, we said our farewells to Pat and Robert who were heading to Manchester, before we boarded the plane for a good journey back to the UK.



*Aster alpinus*

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## Species Lists

### Plants

#### Scientific Name

#### Location

#### **POLYPODIOPSIDA - FERNS**

##### **Aspleniaceae – Spleenwort Family**

<i>Asplenium septentrionale</i>	Ile-Alatau National Park
<i>Asplenium trichomanes</i>	Ile-Alatau National Park
<i>Asplenium viride</i>	Ile-Alatau National Park

##### **Dryopteridaceae**

<i>Dryopteris filix-mas</i>	Common throughout
<i>Dryopteris fragilis</i>	Ile-Alatau and Ulken-Kaindy

##### **Equisetaceae – Horsetail Family**

<i>Equisetum ramosissimum</i>	Big Almaty Lake
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##### **Ophioglossaceae – Adder’s-tongue Family**

<i>Botrychium lunaria</i>	Big Almaty Lake
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#### **PINOPSIDA (GYMNOSPERMS) - CONIFERS**

##### **Cupressaceae - Cypress Family**

<i>Juniperus pseudosabina</i>	Common, Ile-Alatau National Park
<i>Juniperus polycarpus var. seravschanica</i>	Common, Aksu-Dzhabagly nature reserve
<i>Juniperus sibirica</i>	Common throughout.

##### **Ephederaceae – Ephedra Family**

<i>Ephedra equisetina</i>	Aksu Gorge
<i>Ephedra regeliana</i>	Big Almaty Lake

##### **Pinaceae – Pine family**

<i>Picea schrenkiana</i>	Common pine in mountains
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#### **MAGNOLIOPSIDA – FLOWERING PLANTS**

##### **Magnoliidae (Dicotyledons)**

##### **Apiaceae – Carrot Family**

<i>Angelica brevicaulis</i>	Cosmostation, Ile-Alatau National Park
<i>Angelica archangelica</i> subsp <i>decurrens</i>	Above Alpine Rose guesthouse, Ile-Alatau NP
<i>Anthriscus sylvestris</i>	Above Alpine Rose guesthouse, Ile-Alatau NP
<i>Ferula penninervis</i>	Kshi-Kaindy, Aksu-Dzhabagly nature reserve
<i>Ferula renardii</i>	Ulken-Kaindy, Aksu-Dzhabagly nature reserve
<i>Ferula tenuisecta</i>	Kshi-Kaindy, Aksu-Dzhabagly nature reserve
<i>Mediasia macrophylla</i>	Ulken-Kaindy, Aksu-Dzhabagly nature reserve
<i>Prangos pabularia</i>	Kshi-Kaindy, Aksu-Dzhabagly nature reserve
<i>Turgenia latifolia</i>	Kok Sai canyon

##### **Asteraceae – Daisy Family**

<i>Achillea filipendulina</i>	Kshi-Kaindy, Aksu-Dzhabagly nature reserve
<i>Alphredia nivea</i>	Big Almaty Lake
<i>Artemisia aschurbajevii</i>	Cosmostation, Ile-Alatau National Park
<i>Aster alpinus</i>	Big Almaty Lake, Ulken-Kaindy Pass
<i>Centaurea besseriana (squamata)</i>	Aksu Gorge
<i>Centaurea depressa</i>	Kok Sai Gorge
<i>Centaurea ruthenica</i>	Near debris dam, Almaty
<i>Cousinia fetissowii</i>	Ulken-Kaindy, Aksu-Dzhabagly nature reserve
<i>Cousinia microcarpa</i>	Aksu Gorge
<i>Cousinia minkwitziae</i>	Aksu Gorge
<i>Cousinia umbrosa</i>	Aksu Gorge
<i>Doronicum turkestanicum</i>	Big Almaty Lake
<i>Echinops chantavicus</i>	Near debris dam, Almaty

Scientific Name	Location
<i>Echinops tschimganicus</i>	Kok Sai Gorge & Ulken-Kaindy Valley
<i>Erigeron auranticus</i>	Ile-Alatau National Park
<i>Handelia trichophylla</i>	Kok Sai Gorge
<i>Helichrysum maracandicum</i>	Kok Sai Gorge, Aksu Gorge
<i>Inula macrophylla</i>	Near debris dam, Almaty
<i>Inula rhizocephala</i>	Ile-Alatau National Park
<i>Leontopodium fedtschenkoanum</i>	Ile-Alatau National Park & Ulken Kaindy
<i>Leontopodium ochroleucum</i>	Big Almaty Lake
<i>Ligularia heterophylla</i>	Ile-Alatau National Park
<i>Ligularia macrophylla</i>	Ile-Alatau National Park
<i>Ligularia talassica</i>	Ulken-Kaindy, Aksu-Dzhabagly nature reserve
<i>Ligularia thomsoni</i>	Kshi-Kaindy, Aksu-Dzhabagly nature reserve
<i>Pyrethrum pyrethroides</i>	Ulken-Kaindy, Aksu-Dzhabagly nature reserve
<i>Pyrethrum tienschanicum</i>	Ulken-Kaindy, Aksu-Dzhabagly nature reserve
<i>Schmalhausenia nidulans</i>	Observation Station, Ile-Alatau National Park
<i>Tanacetum santolina</i>	Aksu Gorge
<i>Taraxacum pseudoroeseum</i>	Ile-Alatau National Park
<b>Berberidaceae – Berberis Family</b>	
<i>Berberis oblonga</i>	Kshi-Kaindy, Aksu-Dzhabagly nature reserve
<b>Betulaceae – Birch Family</b>	
<i>Betula pendula</i>	Big Almaty Lake
<i>Betulla tienshanica</i>	Ile-Alatau National Park
<b>Boraginaceae – Borage Family</b>	
<i>Echium vulgare</i>	Near debris dam, Almaty
<i>Eritrichium tianschanicum</i>	Cosmostation, Ile-Alatau National Park
<i>Lappula</i> sp.	Big Almaty Lake
<i>Lindelofia macrostyla</i>	Kshi-Kaindy, Aksu-Dzhabagly nature reserve
<i>Lindelofia tschimganica</i>	Ulken-Kaindy, Aksu-Dzhabagly nature reserve
<i>Macrotomia ugamensis</i>	Ulken-Kaindy, Aksu-Dzhabagly nature reserve
<i>Macrotomia euchroma</i>	Ulken-Kaindy, Aksu-Dzhabagly nature reserve
<i>Myosotis asiatica</i>	Big Almaty Lake
<i>Onosma dichroantha</i>	Aksu Gorge
<b>Brassicaceae – Cabbage Family</b>	
<i>Barbarea vulgaris</i>	Ile-Alatau National Park
<i>Brassica elongata</i>	Kok Sai Gorge
<i>Chorispora bungeana</i>	Ile-Alatau National Park
<i>Draba altaica</i>	Cosmostation, Ile-Alatau National Park
<i>Draba oreades</i>	Cosmostation, Ile-Alatau National Park
<i>Erysimum croceum</i>	Big Almaty Lake
<i>Eutrema (Taphrospermum) altaicum</i>	Cosmostation, Ile-Alatau National Park
<i>Eutrema integrifolium</i>	Ile-Alatau National Park
<i>Isatis costata</i>	Ile-Alatau National Park
<i>Smelowskia calycina</i>	Cosmostation, Ile-Alatau National Park
<i>Turritis glabra</i>	Ile-Alatau National Park
<b>Campanulaceae – Bellflower Family</b>	
<i>Asyneuma argutum</i>	Kshi-Kaindy, Aksu-Dzhabagly nature reserve
<i>Campanula alberti</i>	Ulken-Kaindy, Aksu-Dzhabagly nature reserve
<i>Campanula glomerata</i>	Ile-Alatau National Park
<i>Campanula capusii</i>	Ulken-Kaindy, Aksu-Dzhabagly nature reserve
<i>Codonopsis clematidea</i>	Aksu-Dzhabagly & Ile-Alatau NP
<i>Sergia sewerzowii</i>	Aksu Gorge
<b>Caprifoliaceae – Honeysuckle Family</b>	
<i>Lonicera hispida</i>	Ile-Alatau National Park
<i>Lonicera humilis</i>	Cosmostation, Ile-Alatau National Park
<i>Lonicera karelinii</i>	Ile-Alatau National Park
<i>Lonicera olgae</i>	Ile-Alatau National Park
<i>Lonicera semenovii</i>	Cosmostation, Ile-Alatau National Park
<i>Lonicera stenantha</i>	Big Almaty Lake

Scientific Name	Location
<b>Caryophyllaceae – Pink Family</b>	
<i>Cerastium cerastoides</i>	Ile-Alatau National Park
<i>Cerastium davuricum (dahuricum)</i>	Ile-Alatau National Park
<i>Dianthus hoeltzeri</i>	Kshi-Kaindy, Aksu-Dzhabagly nature reserve
<i>Dianthus tetralaevis</i>	Kok Sai Gorge
<i>Herniaria glabra</i>	Ile-Alatau National Park
<i>Minuartia biflora</i>	Ile-Alatau National Park
<i>Minuartia verna</i>	Big Almaty Lake
<i>Silene brahuica</i>	Kok Sai Gorge
<i>Silene graminifolia</i>	Big Almaty Lake
<i>Silene wallichiana</i>	Big Almaty Lake
<i>Stellaria soongorica</i>	Ile-Alatau National Park
<i>Thylacospermum caespitosum</i>	Cosmostation, Ile-Alatau National Park
<b>Chenopodiaceae – Goosefoot Family</b>	
<i>Rhaphidophyton regelii</i>	Aksu Gorge
<b>Convolvulaceae – Bindweed Family</b>	
<i>Convolvulus arvensis</i>	Aksu Gorge
<i>Convolvulus lineatus</i>	Kok Sai Gorge, Kshi-Kaindy, Aksu-Dzhagley
<b>Crassulaceae – Stonecrop Family</b>	
<i>Rhodiola coccinea</i>	Cosmostation, Ile-Alatau National Park
<i>Rhodiola linearifolia</i>	Ile-Alatau National Park
<i>Rosularia alpestris</i>	Ile-Alatau National Park
<i>Rosularia glabra</i>	Aksu Gorge
<i>Sedum alberti</i>	Kok Sai Gorge
<i>Sedum ewersii</i>	Big Almaty Lake
<i>Sedum hybridum</i>	Ile-Alatau National Park
<b>Dipsacaceae – Teasel Family</b>	
<i>Scabiosa micrantha</i>	Kok Sai Gorge
<i>Scabiosa soongorica</i>	Kok Sai Gorge
<b>Euphorbiaceae – Spurge Family</b>	
<i>Euphorbia alata</i>	Cosmostation, Ile-Alatau National Park
<i>Euphorbia humilis</i>	Ulken-Kaindy, Aksu-Dzhabagly nature reserve
<i>Euphorbia pachyrrhiza</i>	Ile-Alatau National Park
<b>Fabaceae – Pea Family</b>	
<i>Astragalus alatvicus</i>	Big Almaty Lake
<i>Astragalus alpinus</i>	Ile-Alatau National Park
<i>Astragalus lithophilus</i>	Cosmostation, Ile-Alatau National Park
<i>Hedysarum acutifolium</i>	Kshi-Kaindy, Aksu-Dzhagley
<i>Hedysarum flavescens</i>	Ulken-Kaindy, Aksu-Dzhabagly nature reserve
<i>Lathyrus gmelinii</i>	Ile-Alatau National Park
<i>Onobrychis chorassanica</i>	Kok Sai Gorge
<i>Onobrychis echidna</i>	Ulken-Kaindy, Aksu-Dzhabagly nature reserve
<i>Oxytropis albob villosa</i>	Ulken-Kaindy, Aksu-Dzhabagly nature reserve
<i>Oxytropis brachycarpa</i>	Big Almaty Lake
<i>Oxytropis chionobia</i>	Cosmostation, Ile-Alatau National Park
<i>Oxytropis globiflora</i>	Ile-Alatau National Park
<i>Oxytropis lapponica</i>	Ile-Alatau National Park
<i>Thermopsis alpina</i>	Big Almaty Lake
<i>Trifolium pratense</i>	Ile-Alatau National Park
<i>Trifolium repens</i>	Ile-Alatau National Park
<i>Vicia sepium</i>	Ile-Alatau National Park
<b>Fumariaceae – Fumitory Family</b>	
<i>Corydalis gortschakovii</i>	Ulken-Kaindy, Aksu-Dzhabagly nature reserve
<b>Gentianaceae – Gentian Family</b>	
<i>Gentiana karelinii</i>	Big Almaty Lake
<i>Gentiana olivieri</i>	Kok Sai Gorge

Scientific Name	Location
<b>Geraniaceae – Geranium Family</b>	
<i>Geranium rectum</i>	Ile-Alatau National Park
<i>Geranium saxatile</i>	Ile-Alatau National Park
<b>Grossulariaceae – Gooseberry Family</b>	
<i>Ribes meyeri</i>	Big Almaty Lake
<b>Lamiaceae – Dead-nettle Family</b>	
<i>Dracocephalum diversifolium</i>	Kok Sai Gorge
<i>Dracocephalum grandiflorum</i>	Cosmostation, Ile-Alatau National Park
<i>Dracocephalum nutans</i>	Ile-Alatau National Park
<i>Lamium album</i>	Ile-Alatau National Park
<i>Mentha asiatica</i>	Near debris dam, Almaty
<i>Nepeta nuda (pannonica)</i>	Kshi-Kaindy, Aksu-Dzhagley
<i>Origanum vulgare ssp gracilis (tyttanthum)</i>	Kshi-Kaindy, Aksu-Dzhagley
<i>Phlomoides oreophila</i>	Ile-Alatau National Park
<i>Phlomoides pratensis</i>	Ile-Alatau National Park
<i>Phlomis salicifolia</i>	Kshi-Kaindy, Aksu-Dzhagley
<i>Phlomis tianschanicum</i>	Ulken-Kaindy, Aksu-Dzhabagly nature reserve
<i>Salvia aethiops</i>	Aksu Gorge
<i>Salvia deserta</i>	Near debris dam, Almaty
<i>Salvia sclarea</i>	Aksu Gorge
<i>Scutellaria immaculata</i>	Aksu Gorge
<i>Scutellaria lanipes</i>	Kok Sai Gorge
<i>Stachyopsis lamiiflora</i>	Ile-Alatau National Park
<i>Thymus karatavicus</i>	Kok Sai Gorge
<i>Thymus seravschanicus</i>	Ile-Alatau National Park
<i>Ziziphora bungeana</i>	Big Almaty Lake
<b>Linaceae – Flax Family</b>	
<i>Linum olgae</i>	Kshi-Kaindy, Aksu-Dzhagley
<i>Linum pallescens</i>	Kok Sai Gorge
<b>Malvaceae – Mallow Family</b>	
<i>Alcea nudiflora</i>	Common, Aksu-Dzhabagly nature reserve
<b>Morinaceae – Morina Family</b>	
<i>Morina kokanica</i>	Kshi-Kaindy, Aksu-Dzhagley
<b>Onagraceae – Willowherb Family</b>	
<i>Epilobium (Chamerion) angustifolium</i>	Big Almaty Lake
<i>Epilobium (Chamerion) latifolium</i>	Big Almaty Lake
<b>Papaveraceae – Poppy Family</b>	
<i>Glaucium squamigerum</i>	Big Almaty Lake
<i>Papaver croceum</i>	Ile-Alatau National Park
<i>Roemeria refracta</i>	Kok Sai Gorge
<b>Polemoniaceae – Phlox Family</b>	
<i>Polemonium caucasicum</i>	Ile-Alatau National Park
<b>Polygalaceae – Milkwort Family</b>	
<i>Polygala hybrida</i>	Ile-Alatau National Park
<b>Polygonaceae – Dock Family</b>	
<i>Oxyria digyna</i>	Ile-Alatau National Park
<i>Polygonum alpinum</i>	Ile-Alatau National Park
<i>Polygonum coriarium</i>	Ulken-Kaindy, Aksu-Dzhabagly nature reserve
<i>Polygonum ellipticum (nitens)</i>	Ile-Alatau National Park
<i>Polygonum rupestre</i>	Ile-Alatau National Park
<i>Polygonum songaricum</i>	Ile-Alatau National Park
<i>Rheum tianschanicus</i>	Ile-Alatau National Park
<i>Rheum wittrockii</i>	Ile-Alatau National Park
<i>Rumex tianschanicus</i>	Ile-Alatau National Park

Scientific Name	Location
<b>Primulaceae – Primula Family</b>	
<i>Androsace lehmanniana</i>	Cosmostation, Ile-Alatau National Park
<i>Androsace septentrionalis</i>	Ile-Alatau National Park
<i>Androsace sericea</i>	Ulken-Kaindy, Aksu-Dzhabagly nature reserve
<i>Primula algida</i>	Common, Ile-Alatau National Park
<i>Primula kaufmaniana</i>	Ile-Alatau National Park
<i>Primula matthioli</i> ssp. <i>brotheri</i>	Ile-Alatau National Park
<i>Primula matthioli</i> ssp. <i>turkestanica</i>	Aksu-Dzhabagly nature reserve
<i>Primula minkwitziae</i>	Ulken-Kaindy, Aksu-Dzhabagly nature reserve
<b>Pyrolaceae – Wintergreen Family</b>	
<i>Pyrola rotundifolia</i>	Ulken-Kaindy, Aksu-Dzhabagly nature reserve
<b>Ranunculaceae – Buttercup Family</b>	
<i>Aconitum leucostomum</i>	Ile-Alatau NP & near debris dam, Almaty
<i>Aconitum talassicum</i>	Ulken-Kaindy, Aksu-Dzhabagly nature reserve
<i>Adonis aestivalis</i>	Ulken-Kaindy, Aksu-Dzhabagly nature reserve
<i>Anemone narcissiflora</i> ssp. <i>protracta</i>	Ile-Alatau NP & Ulken-Kaindy
<i>Aquilegia atrovinosa</i>	Ile-Alatau National Park & Aksu-Dzhabagly
<i>Atragene sibirica</i>	Ile-Alatau National Park
<i>Callianthemum alatavicum</i>	Cosmostation, Ile-Alatau National Park
<i>Delphinium confusum</i>	Ulken-Kaindy, Aksu-Dzhabagly nature reserve
<i>Isopyrum (Paropyrum) anemonoides</i>	Ile-Alatau National Park
<i>Oxygraphis glacialis</i>	Cosmostation, Ile-Alatau National Park
<i>Paraquilegia anemonoides</i>	Below cosmostation, Ile-Alatau National Park
<i>Paraquilegia caespitosa</i>	Ulken-Kaindy, Aksu-Dzhabagly nature reserve
<i>Pulsatilla campanella</i>	Ile-Alatau National Park & Aksu-Dzhabagly
<i>Ranunculus alberti</i>	Cosmostation, Ile-Alatau National Park
<i>Ranunculus polyrhizus</i>	Ile-Alatau National Park
<i>Ranunculus repens</i>	Cosmostation, Ile-Alatau National Park
<i>Thalictrum flavum</i>	Ulken-Kaindy, Aksu-Dzhabagly nature reserve
<i>Thalictrum minus</i>	Big Almaty Lake
<i>Trollius altaicus</i>	Ulken-Kaindy, Aksu-Dzhabagly nature reserve
<i>Trollius dschungaricus</i>	Ile-Alatau National Park & Aksu-Dzhabagly
<i>Trollius lilacinus</i>	Cosmostation, Ile-Alatau National Park
<b>Rosaceae – Rose Family</b>	
<i>Agrimonia asiatica</i>	Near debris dam, Almaty
<i>Alchemilla sibirica</i>	Ile-Alatau National Park & Aksu-Dzhabagly
<i>Cerasus erythrocarpa</i>	Aksu Gorge
<i>Crataegus turkestanica</i>	Kshi-Kaindy, Aksu-Dzhabagly nature reserve
<i>Fragaria vesca</i>	Ile-Alatau National Park
<i>Geum rivale</i>	Ile-Alatau National Park & Aksu-Dzhabagly
<i>Malus sieversii</i>	Ile-Alatau National Park & Aksu-Dzhabagly
<i>Potentilla asiatica</i>	Ile-Alatau National Park
<i>Potentilla evistita</i>	Ile-Alatau National Park
<i>Potentilla multifida</i>	Ile-Alatau National Park
<i>Potentilla orientalis</i>	Aksu Gorge
<i>Prunus (Padus) mahaleb</i>	Kshi-Kaindy, Aksu-Dzhabagly nature reserve
<i>Rosa albertii</i>	Ulken-Kaindy, Aksu-Dzhabagly nature reserve
<i>Rosa fedtschenkoana</i>	Ile-Alatau National Park
<i>Rosa hissarica</i>	Ulken-Kaindy, Aksu-Dzhabagly nature reserve
<i>Rosa kokanica</i>	Kshi-Kaindy, Aksu-Dzhabagly nature reserve
<i>Rosa maracandica</i>	Aksu Gorge
<i>Rosa nanothamnus</i>	Aksu Gorge
<i>Rosa persica</i>	Aksu Gorge
<i>Rosa platyacantha</i>	Near debris dam, Almaty
<i>Rubus idaeus</i>	Ile-Alatau National Park
<i>Sibbaldia tetrandra</i>	Cosmostation, Ile-Alatau National Park
<i>Sorbus persica</i>	Kok Sai Gorge
<i>Sorbus tianschanica</i>	Ile-Alatau National Park
<i>Spirea pilosa</i>	Kshi-Kaindy, Aksu-Dzhabagly nature reserve
<b>Rubiaceae – Bedstraw Family</b>	
<i>Galium verum</i>	Kshi-Kaindy, Aksu-Dzhabagly nature reserve

Scientific Name	Location
<b>Rutaceae – Rue Family</b> <i>Dictamnus albus</i>	Almaty debris dam & Kshi-Kaindy, Aksu-Dzhabagly nature reserve
<b>Saxifragaceae – Saxifrage Family</b> <i>Chrysosplenium nudicaule</i> <i>Saxifraga macrocalyx</i> <i>Saxifraga oppositifolia</i> <i>Saxifraga sibirica</i>	Cosmostation, Ile-Alatau National Park Cosmostation, Ile-Alatau National Park Cosmostation, Ile-Alatau National Park Ile-Alatau National Park
<b>Scrophulariaceae – Figwort Family</b> <i>Bungea vesiculifera</i> <i>Euphrasia bajancolica</i> <i>Lagotis integrifolia</i> <i>Pedicularis dolichorrhiza</i> <i>Pedicularis macrophilla</i> <i>Pedicularis oederi</i> <i>Pedicularis pubiflora</i> <i>Pedicularis violascens</i> <i>Rhinanthus songaricus</i> <i>Scrophularia kiriloviana</i>	Aksu Gorge Big Almaty Lake Above observation station, Ile-Alatau NP Ile-Alatau National Park Ile-Alatau National Park Above observation station, Ile-Alatau NP Cosmostation, Ile-Alatau National Park Cosmostation, Ile-Alatau National Park Ulken-Kaindy, Aksu-Dzhabagly nature reserve Big Almaty Lake
<b>Valerianaceae – Valerian Family</b> <i>Patrina intermedia</i> <i>Valeriana turkistanica</i>	Big Almaty Lake Big Almaty Lake
<b>Violaceae – Violet Family</b> <i>Viola altaica</i> <i>Viola biflora</i> <i>Viola rupestris</i> <i>Viola tianschanica</i>	Ile-Alatau National Park Ulken-Kaindy, Aksu-Dzhabagly nature reserve Ile-Alatau National Park Cosmostation, Ile-Alatau National Park
<b>Liliidae (Monocotyledons)</b>	
<b>Amaryllidaceae – Daffodil Family</b> <i>Ungernia sewerzowii</i>	Aksu Gorge (in seed)
<b>Asparagaceae -</b> <i>Polygonatum sewerzowii</i>	Ulken-Kaindy, Aksu-Dzhabagly nature reserve
<b>Asphodelaceae – Asphodel Family</b> <i>Eremurus altaicus</i> <i>Eremurus regellii</i> <i>Eremurus robustus</i> <i>Eremurus tianschanicus</i>	Ile-Alatau National Park Ulken-Kaindy, Aksu-Dzhabagly nature reserve Near debris dam, Almaty Almaty debris dam & Kok Sai Gorge
<b>Iridaceae – Iris Family</b> <i>Iris alberti</i>  <i>Iris halophila</i> var. <i>sogdiana</i> ( <i>I. sogdiana</i> ) <i>Iris willmottiana</i>	Almaty debris dam & Aksu-Dzhabagly nature reserve (in seed) Aksu-Dzhabagly nature reserve Kok Sai Gorge & Ulken-Kaindy (in seed)
<b>Ixioliriaceae</b> <i>Ixiolirion tataricum</i>	Ulken-Kaindy, Aksu-Dzhabagly nature reserve
<b>Liliaceae – Lily Family</b> <i>Allium atosanguineum</i> <i>Allium barsczeweskii</i> <i>Allium caesium</i> <i>Allium caeruleum</i> <i>Allium eriocoleum</i> <i>Allium drobovii</i> <i>Allium fedtschenkoanum</i> <i>Allium fetisowii</i> <i>Allium hymenorhizum</i> <i>Allium karataviense</i>	Cosmostation, Ile-Alatau National Park Kok Sai Gorge Kok Sai Gorge Kok Sai Gorge Aksu Gorge Near debris dam, Almaty Ulken-Kaindy, Aksu-Dzhabagly nature reserve Ulken-Kaindy, Aksu-Dzhabagly nature reserve Kshi-Kaindy, Aksu-Dzhabagly nature reserve Ulken-Kaindy, Aksu-Dzhabagly nature reserve

Scientific Name	Location
<i>Allium oreophyllum</i>	Ulken-Kaindy, Aksu-Dzhabagly nature reserve
<i>Allium pallasii</i>	Near debris dam, Almaty
<i>Allium carolinianum (polyphyllum)</i>	Ulken-Kaindy, Aksu-Dzhabagly nature reserve
<i>Allium schoenoprasoides</i>	Ile-Alatau National Park
<i>Fritillaria stenantha</i>	Ulken-Kaindy, Aksu-Dzhabagly (seed)
<i>Fritillaria swerzowii</i>	Ulken-Kaindy, Aksu-Dzhabagly (seed)
<i>Gagea emarginata</i>	Cosmostation, Ile-Alatau National Park
<i>Gagea filiformis</i>	Ulken-Kaindy, Aksu-Dzhabagly nature reserve
<i>Gagea serotina</i>	Common, Ile-Alatau National Park
<i>Gagea turkestanica</i>	Cosmostation, Ile-Alatau National Park
<i>Tulipa bifloriformis</i>	Aksu Gorge (seed)
<i>Tulipa dasystemon</i>	Cosmostation, Ile-Alatau National Park
<i>Tulipa dasystemonoides</i>	Ulken-Kaindy, Aksu-Dzhabagly nature reserve
<i>Tulipa greigii</i>	Aksu-Dzhabagly (common, in seed)
<i>Tulipa heterophylla</i>	Cosmostation, Ile-Alatau National Park
<i>Tulipa kaufmanniana</i>	Ulken-Kaindy, Aksu-Dzhabagly nature reserve
<b>Orchidaceae – Orchid Family</b>	
<i>Dactylorhiza umbrosa</i>	Big Almaty Lake & Kshi-Kaindy
<i>Dactylorhiza (Coeloglossum) viridis</i>	Big Almaty Lake
<i>Goodyera repens</i>	Ile-Alatau National Park

## Birds

### **Himalayan Snowcock** *Tetraogallus himalayensis*

Three birds flushed from slope on descent from Ulken-Kaindy pass back to mountain house.

### **Chukar** *Alectoris chukar*

Heard and seen high in Ulken-Kaindy valley, Aksu-Dzhabagly Nature Reserve. Adult with chicks seen just below Ulken-Kaindy pass.

### **Common Pheasant** *Phasianus colchicus*

Heard and seen around Aksu-Dzhabagly Nature Reserve

### **Quail** *Coturnix coturnix*

Heard daily at Ulken-Kaindy in Aksu-Dzhabagly Nature Reserve.

### **Ruddy Shelduck** *Tadorna ferruginea*

Six birds on Big Almaty Lake and one in the Kok Sai Gorge.

### **Black Stork** *Ciconia nigra*

One bird flying through the Kok Sai Gorge.

### **Black Kite** *Milvus migrans*

4 seen from the train after leaving the Almaty region

### **Bearded Vulture** *Gypaetus barbatus*

1 over Big Almaty lake area and 1 over Ulken-Kaindy pass

### **Egyptian Vulture** *Neophron percnopterus*

1 over the Kok Sai Gorge

### **Himalayan Griffon Vulture** *Gyps himalayensis*

1 over the Ulken-Kaindy pass

### **Cinereous Vulture** *Aegypius monachus*

3 over the Kshi-Kaindy pass

### **Short-toed Snake Eagle** *Circaetus gallicus*

Single bird hunting in Aksu Gorge

**Shikra** *Accipiter badius*

Two on steppe outside Almaty.

**Common Buzzard** *Buteo buteo*

One above Alpine Rose Guesthouse.

**Golden Eagle** *Aquila chrysaetos*

One above the observation station near Big Almaty Lake.

**Lesser Kestrel** *Falco tinnunculus naumanni*

Three outside Tulkubas.

**Eurasian Kestrel** *Falco tinnunculus tinnunculus*

Almost daily.

**Eurasian Hobby** *Falco subbuteo subbuteo*

1 on way to Kshi-Kaindy, a pair over the Ulken-Kaindy pass and a pair hawking dragonflies over the Aksu Gorge.

**Saker Falcon** *Falco cherrug*

1 near Ulken-Kaindy.

**Ibisbill** *Ibidorhyncha struthersii*

A pair at Big Almaty Lake.

**Feral Pigeon** *Columba livia neglecta*

Seen daily

**Common Woodpigeon** *Columba palumbus*

2 seen near Almaty and 6 in the Ulken-Kaindy valley.

**Oriental Turtle Dove** *Streptopelia (orientalis) meena*

Almost daily.

**Laughing Dove** *Streptopelia senegalensis*

Daily around Zhabagly village.

**Eurasian Collared Dove** *Streptopelia decaocto stoliczkae*

Single in Zhabagly.

**Common Cuckoo** *Cuculus canorus*

Heard or seen daily.

**Eurasian Scops Owl** *Otus scops*

Calling each evening in Zhabagly village.

**European Nightjar** *Caprimulgus europaeus*

One put up Ulken-Kaindy valley quite high up on sparse scree.

**European Roller** *Coracias garrulous semenowi*

Very common on wires, around Zhabagly village and Aksu-Zhabagly.

**European Bee-eater** *Merops apiaster*

Seen on the wires along the railway line from Almaty.

**Long-tailed Shrike** *Lanius schach erythronotus*

A single bird was present outside Zhabagly village.

**Lesser Grey Shrike** *Lanius minor*

At least 4 around Zhabagly village.



**Eurasian Golden Oriole** *Oriolus oriolus*

3 on walk out to Kshi-Kaindy.

**Magpie** *Pica pica bactriana*

Daily with exception of Aksu-Dzhabagly nature reserve.

**Spotted Nutcracker** *Nucifraga caryocatactes*

Heard calling in pines around the Alpine Rose Guesthouse.

**Alpine Chough** *Pyrrhocorax graculus*

Good numbers around the Cosmostation and half a dozen at the Ulken-Kaindy pass.

**Red-billed Chough** *Pyrrhocorax pyrrhocorax centralis*

Two near the Cosmostation.

**Jackdaw** *Corvus monedula soemmerringii*

Mixed in the huge flocks of corvids seen from the train and numerous around Zhabagly village.

**Carrion Crow** *Corvus corone*

Common most days but less numerous around Ulken-Kaindy.

**Common Raven** *Corvus corax*

Most days around Ile-Alatau National Park.

**Great Tit** *Parus major*

4 around Alpine Rose Guesthouse and several in the Aksu Gorge.

**Yellow-breasted Tit** *Cyanistes flavipectus*

A pair around Ulken-Kaindy.

**White-crowned Penduline Tit** *Remiz coronatus*

Heard near Big Almaty Lake and daily around the Ulken-Kaindy area.

**Calandra Lark** *Melanocorypha calandra*

On steppe at Kok Sai and Aksu gorges.

**Barn Swallow** *Hirundo rustica*

Common around Zhabagly village.

**White-browed Tit Warbler** *Leptopoecile sophiae*

An obliging pair near Big Almaty Lake in Juniper scrub.

**Hume's Leaf Warbler** *Phylloscopus humei*

Common in and around both Ile-Alatau National Park and Aksu-Zhabagly Nature Reserve.

**Hume's Whitethroat** *Sylvia althaea*

2 near Big Almaty Lake.

**Common Whitethroat** *Sylvia communis*

Singing near Alpine Rose Guesthouse and Common in Aksu-Zhabagly Nature Reserve.

**Eurasian Wren** *Troglodytes troglodytes*

Near Big Almaty Lake.

**Common Myna** *Acridotheres tristis*

Regularly encountered usually around habitations.

**Common Starling** *Sturnus vulgaris porphyronotu*

Odd pair around Zhabagly village.

**Rose-coloured Starling** *Sturnus roseus*

Flocks common on the steppe plus around Zhabagly village and both Kok Sai and Aksu Gorges.

**Blue Whistling Thrush** *Myophonus caeruleus*

One singing around the Alpine Rose Guesthouse.

**Eurasian Blackbird** *Turdus merula intermedius*

Several birds seen throughout the trip.

**Mistle Thrush** *Turdus viscivorus bonapartei*

Single bird near Alpine Rose Guesthouse and several birds around Aksu-Zhabagly Nature Reserve

**Himalayan Rubythroat** *Luscinia pectoralis*

Bird in Juniper scrub below the observation station.

**Common Nightingale** *Luscinia megarhynchos*

Regularly singing in scrub around Aksu-Dzhabagly Nature Reserve.

**Güldenstadt's Redstart** *Phoenicurus erythrogaster*

Pair around Big Almaty lake.

**Siberian (Common) Stonechat** *Saxicola maurus*

Several pairs around Ulken-Kaindy, Aksu-Dzhabagly Nature Reserve.

**Northern Wheatear** *Oenanthe oenanthe*

A single pair at the Cosmostation.

**Common Rock Thrush** *Monticola saxatilis*

A pair with young at the top of the Ulken-Kaindy valley.

**House Sparrow** *Passer domesticus domesticus*

Almaty and Zhagably village.

**Eurasian Tree Sparrow** *Passer montanus dilutus*

Zhagably village.

**Brown Accentor** *Prunella fulvescens*

One by the observation station.

**Black-throated Accentor** *Prunella atrogularis*

Numerous birds in Juniper scrub and pines around Big Almaty lake and up to the observation station. 2 at Ulken-Kaindy pass.

**Grey Wagtail** *Motacilla cinerea*

Single bird by the Cosmostation.

**'Masked' (White) Wagtail** *Motacilla (alba) personata*

Numerous in Almaty, and Zhabagly village and surrounding area.

**Tawny Pipit** *Anthus campestris*

Single bird in the Kok Sai Gorge.

**Tree Pipit** *Anthus trivialis*

Numerous birds around the Alpine Rose Guesthouse.

**Water Pipit** *Anthus spinoletta*

One bird near the observation station.

**Red-fronted Serin** *Serinus pusillus*

Common in Ile-Alatau National Park.

**Grey-headed' (European) Goldfinch** *Carduelis carduelis*  
Common throughout the trip.

**Common Rosefinch** *Carpodacus erythrinus ferghanensis*  
Two in the Ulken-Kaindy valley.

**Red-mantled Rosefinch** *Carpodacus rhodochlamys*  
Two below Big Almaty Lake.

**White-winged Grosbeak** *Mycerobas carnipes*  
A pair above Big Almaty Lake, single above the observation station and several birds around Ulken-Kaindy.

**Corn Bunting** *Miliaria calandra buturlini*  
Zhabagly village outskirts and up to high alpine meadows in Aksu-Zhabagly Nature Reserve.

**Rock Bunting** *Emberiza cia par*  
Common high on the rocky areas above Ulken-Kaindy, Aksu-Zhabagly Nature Reserve

**White-capped Bunting** *Emberiza stewarti*  
Single bird around Kshi-Kaindy.

**Red-headed Bunting** *Emberiza bruniceps*  
Common around Kok Sai and Aksu Gorges as well as throughout Aksu-Zhabagly Nature Reserve.

## Mammals

**Red Squirrel** *Sciurus vulgaris*  
Regular around the Alpine rose Guesthouse, single near Big Almaty Lake and within the urban parks of Almaty.

**Grey Marmot** *Marmota baibacina*  
Several animals around the observation station area of Ile-Alatau National Park.

**Red Fox** *Vulpes vulpes*  
Single above the observation station.

**Stoat** *Mustela erminea*  
Single above the observation station.

**Siberian Ibex** *Capra sibirica*  
Ten plus animals above the Ulken-Kaindy valley.

## Naturetrek Facebook

We are delighted to launch the Naturetrek Facebook page so that participants of Naturetrek tours can remain in touch after the holiday and share photos, comments and future travel plans.

Setting up a personal profile at [www.facebook.com](http://www.facebook.com) is quick, free and easy. The [Naturetrek Facebook page](#) is now live; do please pay us a visit!



*Ligularia macrophylla* overlooking Big Almaty Lake



*Allium polyphyllum*



*Trollius lilacinus*