Sichuan

Black Primulas & Prayer Flags

26th June - 13th July 2011

A Greentours Trip Report

Led by Ian Green

Day 1 June 26th Departure

We met up from various parts of the UK and Bergen at Amsterdam, and KLM's direct flight to Chengdu left only a tiny bit late.

Day 2 June 27th Chengdu

It must have been quite a time after dawn that I awoke from my slumber and watched the dry and high landscapes of northwestern China slip by as breakfast was served. There were no clouds, only an incredible brightness, and below the Taklamakan appeared as a beach, rippled and empty, after some minutes interrupted by the human scar of a road, as if drawn by a ruler. Way to the south snow-capped ranges could be seen. Moving eastwards our flight skirted the really high country, instead going east then south. The desert lands became more mountainous, the occasional valley or oasis showed signs of cultivation and on the map on the screen I could see the huge lake Koko Nor had been passed on the other side of the aircraft. Suddenly the mountains became higher and steeper, grassy on the southern slopes, forested on the northern, and with snow on the highest parts. Then we left the mountains for a circuit of the highly populated Red Basin before circling in to land at Chengdu's shiny modern airport. This was the model of relatively slow efficiency. Once the usual procedures had been completed we were outside and meeting Tsebho and Nongbu, our local (actually not local in Chengdu terms, ethnic Tibetans) drivers.

We headed for the hotel in the city centre – a big city too as more than ten million people live in Chengdu. The traffic was reasonable until we got close to the hotel when it slowed almost to a standstill. We were at the Wen Jun Hotel by mid-afternoon, a lovely quiet little place with very nice rooms and set on a rather posh street, with shops selling expensive stuff, all in new buildings done in old-style Chinese architecture, a very pleasing scene.

We decided not to bother with the Panda Centre this afternoon (too much driving) and instead, after a shower and settling in, headed for the Tibetan Quarter. This is a recent phenomenon, growing up because of the economics of scale (you can buy anything in Chengdu, you can't in Maniganga) and also because it represents an easy meeting point for buddhist high-flyers! We wandered the shops and streets with Tsebho and Nongbu, we in a bit of a daze from our long journey. There were shops selling Tibetan music, jewellery and all sorts of 'monkery' from brassware to robes, from beads to prayer flags. There were shops selling yak-butter tea mixers (only!) and even ornate boots for wandering Tibetan Mariachi! We visited a tea shop and tried the

yak-butter tea, not a winner to the western palate it has to be said.

Then it was back to the hotel to relax, or wander and take in the sights of a summer's day in Chengdu. The streets were busy with people many on bicycles, motorbikes or the increasingly popular little electric bikes which are somewhere between the two. Many of these had two seats in a line, a nice design! Then it was to the excellent Sichuanese restaurant across the road from the hotel where we enjoyed a very nice spread. It was chance to get to know the various tastes, the chili of course, but more importantly the Sichuan pepper which is both spicy and numbing at the same time, a most odd sensation, but a top flavour. The dishes varied greatly in terms of their hotness and it was easy to adjust your meal to your own level of spiciness.

Day 3 June 28th Wolong

Bright and sunny and already very warm by breakfast time in the centre of Chengdu. We enjoyed a varied breakfast and then packed up and were off just after eight-fifteen. To start with though it was slow going, in fact the same pedestrian overtook us three times before we finally got the better of them. Nonetheless it was pleasant to watch the bee-hive of activity that was Chengdu in the morning and see the elegantly dressed women along the main shopping streets. It took us two hours to shed ourselves of the city, finally reaching open agricultural areas, though these were so very intensively cultivated with trees and grown for export to the city's gardens, as well as citrus groves, that we still felt very much part of urban life. The crops under the trees were varied, many crops have three harvests a year in this area. Even reaching the edge of the mountains we were confronted with giant factories and urbanisation, roads everywhere. As we entered the mountains things began to change, though still the roads were amazing, tunnels driven straight through mountains for kilometres emerging briefly into daylight before plunging into to the rock again – awesome stuff! Then we followed a valley that heads up to Wolong and the Balang Shan. This area was badly damaged during the 2008 earthquake and the road is still a mess, at least in the lower parts of the valley. Most of the villages showed signs of damage. We hadn't seen it in Dujiangyan at the foot as that had all been rebuilt but that small city had been hard hit with many dead. We followed the river uphill, all the way to Wolong without stopping. We settled into our hotel and then took lunch there, excellent local fare as usual.

Soon after we set out for the afternoon trip. This was to the Yinlong Valley where we took a track up the gorge. This like much else in the area had been damaged by the earthquake though in truth it had been hit by frequent landslides since! We crossed a couple of these on our kilometre walk. The vegetation was lush with all sorts of trees and shrubs, the holly *llex pernyi* with its triangular leaves was distinctive and we had our first encounter with *Deutzia longifolia* in flower. There were a couple of *Cardiocrinum* above us but out of reach. Strawberries, from the yellowflowered *Duchesnea indica* were common, more in fruit than flower. We saw the fine pink *Gentiana primuliflora* and our first lousewort, one of the long-tubed *longiflorae* group, this the pink *Pedicularis macrosiphon*. Further up the valley we saw the tall *Pedicularis dunniana*. Ferns were abundant, we saw *Cheilanthes argentea*, *Gymnocarpium remotipinnatum* and various *Polystichums* including *Polystichum stimulans*. *Saxifraga fortunei* with one white petal much longer than the others was our first cliff-dweller but we soon found more, the lovely little pink, white-centred *Primula moupinense* and the newly described *Corydalis madida*, a fine plant with glaucous leaves, red-orange stems and yellow-green flowers, this species was actually first discovered by John and

Hilary who were on the tour with us! Another cliff that most did not reach had lots of this and *Pinguicula alpina* in seed and a little of the delicate orchid *Amitostigma monanthum*. Other plants of note here were *Alectris glabra*, and *Tofieldia thibetica* in bud. A couple of Himalayan Griffons cruised overhead but otherwise birds were quiet, just Fork-tailed Swifts.

We moved uphill a few miles and pottered by the roadside. This proved a good area for butterflies with at least two Blue Admirals, a fine black and white Jezebel species and several of one of the Chinese Peacocks, a large dark swallowtail. There was also a brief view of a Red-billed Blue Magpie. Plantwise we had two new louseworts, the large and odd-looking *Pedicularis rex*, and the orchid-like *Pedicularis davidii* with its elegant spikes of white and pink flowers, the galea with a rakish sideways twist! *Clematis peterae* clambered all over three species of Acer including *Acer davidii*, and the rhododendron-like *Salix magnifica*. *Deutzias*, *Viburnums* and *Hydrangea heteromallis* flowered profusely.

Heading back to Wolong we stopped for a small stand of *Cardiocrinum giganteum*, these required a scramble up a bank but they were well worth it. Growing with them was the large yellow *Salvia campanulata*. Then it was back to base. The evening meal was so much enjoyed (or were we just hungry?) that seconds of spare ribs and the fried cabbage were necessary!

Day 4 June 29th The lower slopes of the Balang Shan

I popped out for a pre-breakfast walk up the valley. Birds were slow to move only really coming out once the sun had appeared and broken through the mists. I saw several Red-billed Blue Magpies, a small party of Chinese Babaxes and several Chestnut Thrushes sitting out in the open and singing loudly. A Yellow-bellied Tit sang from a wire, and a Chinese Leaf Warbler from the top of a larch.

We were very pleased to see wall to wall, or mountainside to mountainside sunshine as we drove up the beautiful valley above Wolong. It took us a little over half an hour, increased slightly by your leader stopping to pick up an Indian Blue Robin that had met its end on the road, to reach the start of a trail. Things had changed since last year, this quiet road corner with a nice path running off through the forest, with no-one about, now had a research station being built at the entrance, and the trail had widened for the continual pack animal traffic involved in building a bridge some way up the valley. Little had changed either side of the track though, only the track itself was muddy and smelled strongly of horses, and in a couple of the idyllic little glades we usually visited there were camps for the bridge-builders. I have to admit to thinking that they might be working hard, but they had nice campsites! The horse dung and muddy path was attractive to butterflies and we had frequent sightings of skippers, and various whites including a common Ceporia species. Phylloscopus warblers were singing throughout. Few other birds were seen, only Blue Whistling Thrushes and a female Fujian Niltava. We soon started to find new plants. The deep purple *Phlomis atropurpurea* was frequent and on a bank we found our first Pedicularis of the day, the lovely pink Pedicularis macrosiphon with an extremely long flower tube raising the rest of the plant right off the ground. By a rushing stream we saw the impressive Arisaema elephas in flower and just below it was a collection of nice plants, the black-red Veratrum nigrum, Maianthemum atropurpureum, tall Polygonatum verticillastrum not quite yet in flower, and Trollius yunnanense. Just across the stream, we explored the river bank where we found our first

Oreorchis patens of the day, the first of many. Androsace henryi's white drumsticks were going over amongst a fine show of Iris bulleyana, and on the mossy bank by the river we found the delicate Streptopus parviflora with its hanging bells. There was a new blue Corydalis here, the flowers a richer darker blue than the flexuosa seen yesterday and the plant altogether more robust, this Corydalis elata. Above we found another delicate Corydalis, and the yellow Mimulus szaechuanensis. En route to lunch we photographed more of the same, and a couple of really tiny orchids found in deep mossy forest. There was the fine little twayblade, Neottia smithii, with a dark green line down the centre of the lip, and the really tiny flowered saprophytic (no leaves at all) Neottia acuminata. Various fungi were found including Russulas, Boletus species, a slime mould and Dryad's Saddle.

We enjoyed a lunch of fried rice in a little clearing and then headed slowly back, Hilary finding a fine orchid, Calanthe tricarinata, in good flower. We were already at 2500m or so but now it was time to head up the first stages of the pass. We left the low moss—laden forest and headed into a shrub zone. Patches of grassland started to appear and we stopped to explore an area of mixed scrub and meadow. This was rich indeed, In an acre of meadow we found all sorts. There was a fine show of yellow *Primula sikkimensis* and with it was both the blackish *Veratrum nigrum* and white Veratrum macrophyllum. In shadey spots we found the pink flowered Polygonatum curvistylum. Little Iris goniocarpa was much appreciated as was the fine fresh Iris bulleyana. There were orchids too, Gymnadenia crassinervis varying from rich pink to almost green, one or two Gymnadenia conopsea, and a nice population of Ponerorchis chusea. Above the road a fine meadow had all sorts – this was a very rich spot indeed! Here was our first Lady's Slipper, Cypripedium tibeticum with a fantastic big purple-pink pouch. Nearby we found Galearis wardi and Malaxis monophyllis, typically in this area with two leaves! Under dwarf oaks we saw a fine clump of Primula polyneura. I found a big patch of Calanthe tricarinata and most of the group saw fine specimens of Paeonia veitchii. The flowers meant we had little time to look at the birds but there were a few, Olive-backed Pipit, Jungle Crow and Chestnut Thrush.

Our last stop of the day was at 3500m just at the point one leaves the shrubbery and comes out into open alpine country. We explored a lush grassy slope. Grassy it hardly was, the flowers were pretty thick. Most prominent among them was the pink *Primula nutans* which covered the slope in drifts interrupted by patches of yellow *Caltha palustris* and purple *Iris bulleyana*. There were hundreds and hundreds of fabulous dark slippers of *Cypripedium tibeticum*. It was difficult to know what to photograph. Scattered amongst them was the delightful nodding yellow *Lilium lophophorum*. There were yellow *Corydalis pseudocristata* whose flowers have a distinct 'crest' and more of the vibrant blue *Corydalis barbisepala*. Louseworts were represented by both the bicoloured *davidii* and the rich red *pentadon* variety of *Pedicularis davidii* as well as yellow *Pedicularis lasiophrys*. There were more new orchids, this time Frog Orchid and the diminutive *Galearis spathulata*. The whole slope was an amazing sight and we sent a happy hour and a half photographing it before it was time to descend too Wolong.

Day 5 June 30th The Balang Shan

The weather looked reasonable this morning with cloud lying low, but with a chance it would rise and disappear. Breakfast done, we packed and said goodbye to the very amenable people at our hotel.

We headed up the Pitao Valley soon starting the climb up the Balang Shan. This is a big pass, rising to 4400m, particularly impressive as it is the first pass we reach from the lowlands. We passed yesterday's meadows, pushing ourselves past for they were so flowery! Eventually at around 4000m we stopped for the morning. The slopes above us were covered in a fantastic show of amazing plants. Most obvious were the Meconopsis, and here we had the full gamut of colours on our very first encounter with them. Yellow Meconopsis integrifolia, tall and with many large flowers, many ten cm or more across, were mostly going a little over, but the blue Meconopsis quintuplinervia was in perfect conditions, its little bowls often hanging pendant. Then there was the wonderful Red Poppywort, Meconopsis punicea, whose large red petals coiled downwards out from the hairy bud and look like no other flower on the planet. These are large flowered quite tall plants and the combination was unbelievable. It was easy to get two species in one shot, three if you used the wide angle, but in a few spots even close up you could have all three. The further up slope one went the more the blue and the red hybridised to form a bloom exactly midpoint between the two, a kind of pale lilac-purple. A true flower heaven. And of course there was so much more. There were *Primulas*, the common *Primula sikkimensis*, the similarly pale yellow, but otherwise quite different Primula orbicularis, and upslope, an abundance of Primula nutans. There was even a tiny purple *Primula* that had not yet opened its buds. A most magnificent group of six perfect Cypripedium tibeticum wowed the audience, and I was bowled over by the thousands of this species on the left hand slope. Some comparison was had by the tiny green Androcorys obtusata. There was a little yellow Lloydia and lots of white Lloydia serotina. Pedicularis kansuensis (white albiflora form) was new and so too the pale yellow twin-flowered honeysuckle Lonicera involucrata. We found Fritillaria unibracteata, a little Alectris, and two blue Corydalis, the large barbisepala and the small pachycentra. A pair of lovely Blue-fronted Redstarts had welcomed us along with two Rufous-breasted Accentors. Later a fine Buff-throated Warbler gave good views.

Our next stop involved some good birds too, especially the fantastic Snow Partridge that sat atop a rock and called loudly. There were also Plain Mountain Finches, Rosy Pipits, several Himalayan Griffons and a sparrowhawk species. Here again Meconopsises were to the fore, with even better shows of Red Poppywort and this time the *Meconopsis integrifolia* was in great condition. There was a blue one here too, but a different one, this the lovely small *Meconopsis lancifolia*. A shaley outcrop close to the road had some fine clumps of *Paraquilegia microphylla* and below it stands of Rhodos, the squat *Rhododendron russicum* covered in lilac-purple blooms, the *Rhododendron phaeochrysum* all over apart from one bush which had big creamy flowers. There were *Primulas* too. Here we found lots of the fine large nivalid *Primula melanops* with tall flowering stems topped with a head of large mauve flowers, each slightly darker in the centre. On the rocks was the lovely *Primula gemmifera*. Up on the ridge was a white gentian and yellow *Cyananthus flavus*. There were also plenty of saxifrages, little clumps of yellow-orange *Saxifraga unguicularis*, taller but similarly coloured *Saxifraga pseudohirculus*, and the fine white, with orange spots and black centre, *Saxifraga melanops*.

After we'd enjoyed our picnic here amongst swirling mists we headed higher still, though sadly the mist now enveloped us totally. At least any rain was very light. We stopped in the thick mist and explored an area literally fifty metres below the 4400m pass. It was surreal walking around this landscape in the thick fog! Starling sized Red-faced Rosefinches were very tame, and we also saw Alpine Accentors. Here was another *Meconopsis*, another blue one, this time a prickly species, the prickles with the purple base characteristic of *Meconopsis rudis*. Perhaps the plant of the day was here too, a fantastic corydalis with large heads of brilliant blue flowers growing in tight knit

clumps, wow! This suitably, was called *Corydalis panda*. Aside from having spectacular heads of flowers it also had quite a variety of colour with shades of turquoise, deepest blue and even purple. Nearby grew a drift of *Primula amethystina*, we didn't know where to point our cameras.

Driving over the far side of the pass the fog was still very thick and I couldn't locate the right spot to look for *Corydalis melanocentra*. I tried one spot and found *Ranunculus membraneus*, the tiny *Primula dryadifolia* and pale yellow *Rhododendron primuliflorum*, but conditions were against us. Mary photographed a Plain Mountain Finch. We decided it was best to head downhill.

Nearing our destination we encountered a security stop which at one stage looked like it was going to throw our plans awry, though in the end they let us through. As this was discussed a Wallcreeper flew in and landed close by the road and we watched (but didn't photograph it) as it delivered food to its young! So we went on to our hotel as planned, a rather fine place, slightly marred by hot water only being available from 8pm onwards!

Day 6 July 1st Rilong to Danba

I took a brief pre-breakfast walk into the forested slopes behind the hotel. There were lots of *Ponerorchis chusea* and a little *Platanthera soulei*. Elliot's Laughingthrush was seen.

As we were leaving a Chestnut Thrush gave great views in the 'scope. It was raining and indeed continued to do so all morning so we just drove, passing the massed displays of *Incarvillea arguta* and the patches of *Thalictrum delavayi* without recourse to camerawork. The valleys were full of endless interest, the large square houses, typically painted creamy-white with red decorations, these include the eight Buddhist auspicious symbols. Tsebho told us the conch shell was one and another the swastika, the latter meaning stability hence its frequent appearance on buildings! Walnut groves, orchards, vineyards, vegetable and maize plots, and all the time, a great turbulent river, whose ferocity made us understand how it is possible to delve such deep steep sided valleys. We made a brief stop to visit a particularly tall and well-built, Tibetan Watch Tower.

We made a stop, just as the rain was finishing, just short of Danba. Here we found a selection of mostly unusual rather than beautiful plants. Actually, the white wands of *Eremurus chinensis* might be considered rather pretty but the trailing *Ceropigia mairei*, the little yellow *Siphonostegia chinensis* and the strange *Primula bathangensis* certainly wouldn't be, the latter certainly had kudos for being weird! There were rosettes of *Corallodiscus* amongst the large rosettes of *Selaginella*.

We stopped for an excellent lunch in Danba and then went to our hotel. Unfortunately there was a problem, an insurmountable one, with the booking, and we had to go elsewhere. This was to an old Tibetan style hotel on the opposite side of town. It certainly had style, and that was Tibetan! The inside of the building was decorated with strong colours, and the rooms were in the main OK, several even had western loos. Mine didn't and was a square box with no window, however it did have the bonus of being entirely golden, the walls and ceiling wallpapered gold, the floor carpeted gold, the bedspread, cream and gold, the lampshade, you've guessed it, and even the pipes, back of the door and lights and electric points, all painted gold!!

We spent the afternoon covering part of the route we'd be doing the next day. This took us into a lush valley where the road wound upwards next to a river that plummeted downwards in a more

or less continuous cascade. First though we had to bypass a roadwork. The half hour delay meant we had to explore the immediate vicinity and soon enough we had spotted a Lily. This grew up a steep slopes so not all got to it, but those that did were treated to *Lilium davidii in* fine flower. Phil found *Arisaema erubescens* in flower. Moving past the roadworks we soon found our second lily, the lovely *Lilium duchartreii* with just three of the many plants in fine bloom. Growing with it were both *Epipactis helleborine* and *Epipactis humilior*. On the mossy rocks we found all sorts of nice things. The *Corallodiscus lanuginosus* was found in flower. There was a delicate white *Thalictrum*, all sorts of ferns, and the amazing red *Sedum filipes*. The trees and shrubs were very varied, the latter including *Leycesteria formosana*, a *Berberis, Deutzias, Hydrangeas*, and the pea *Indogifera* (probably) *balfouriana*. We found a fine grape fern (*Botrychium matricarifolium*) under cover where there was also *Paris polyphyllum*, *Malaxis monophyllos*, *Ophiopogon angustifolium*, *Calanthes* in leaf and abundant *Arisaemas*.

On the way back we saw Large-billed and Carrion Crows, Magpie, Blue Whistling Thrushes, Russet Sparrows and Himalayan Griffon.

Day 7 July 2nd Danba to Yajlang

We made an early start this morning as the journey was long and there was much to see en route. We soon reached the valley we had started to explore yesterday, the Moo Niu Valley. We spent all morning stopping at various places along the mid and higher sections of this beautiful and very flower rich place.

We started with a look at pink and yellow *Thalictrum delavayi*, a very showy species, and found with it several very fine species. The hanging yellow lanterns of *Epimedium davidii* were much appreciated as was *Dactylorhiza hatagirea* which is one of only two 'spotted orchids' in the region, the other being green. Further along we stopped again this time we enjoyed a little *Primula* on the rocks, yellow *Siphonostegia* and lots of *Lilium duchartreii* though the latter was only in bud. Next was our first meeting with *Primula cockburniana*, a stunning orange *Primula*, the colour so surprising in this genus.

Our mid-morning stop was a long one amongst mossy forest, cliff, large boulder scree and riverside. We spent an hour and a half in this stretch of road. A fabulous male Mrs Gould's Sunbird was seen here. Growing on the large rocks amongst abundant mosses and ferns was *Pleione limprichtii*, mostly over, but I managed to find one perfect specimen down the side of one giant boulder. Growing with it was lots of the orchid *Galearis spathulata*.

Unfortunately the afternoon did not go to plan at all as after lunch we were redirected by the Chinese authorities who would not let us continue eastwards. This entailed a long drive to Yajlang.

Day 8 July 3rd Yajlang to Litang

Now we were off on our new itinerary! The morning was not too promising, rain all night, but it stopped just before breakfast and was looking a little brighter as we left town. We drove up a long winding valley, roadworks delaying us occasionally, the road condition continually

improving. Hilary started a digger and bulldozer count! Nevertheless the surrounding countryside looked very nice and we passed a sign proclaiming it a nature reserve. We stopped by a roadside bank where the delicate *Primula blinii* hung from the mossy soil. There were some pretty brambles here and the impressive *Pedicularis xiangchengensis* drew much praise.

Not much further up, and nearing the top of the pass at around 4200m we spent the morning exploring a valley covered in thick rhododendron scrub, with some very flowery meadow parts and a few hundred metres walk (and about 50m altitude gain) there were some steep fine screes. *Lilium lophophorum* was common everywhere as was the lovely pink *Androsace limprichtii*. By streams and boggy areas lots of *Primula sikkimensis* was joined by the tall spires of *Rheum* alexandrae. The Meconopsis integrifolia was impressive and we also found lots of Meconopsis lancifolia, a fine violet-blue species. Birds were very good with a little leaf warbler trilling noisily from cover, a fine family party of Severtzov's Tit-Warblers, a beautiful male White-browed Rosefinch and several Rufous-breasted Accentors. Two White-tailed Rubythroats were lovely to see and there were many Blue-fronted Redstarts. Moving up into the scree we found some true floral beauties. There were three corydalis species, all of them absolutely mouth—watering. Commonest by far was the pale sky-blue and white Corydalis melanocentra, the flowers tipped with black-maroon. Taller was the lavender and pink Corydalis calcicola. Best of all was an ultimate scree dweller, Corydalis benecincta, whose leaves bore a close resemblance to the scree itself and above which were held three to four large pale pink-blue blooms. There were some great clumps of Androsace and several crucifers and Saxifrages.

We took lunch back at the road comparing our finds. Then it was time to head on along the heavily roadworked route. During the afternoon's long (distance was not great, but driving was very slow!) we stopped a few times. First was at a roadside with many fine plants of what we think was Meconopsis racemosa on the bank. Later we stopped to admire a massive population of Incarvillea mairei, the incongruously huge red flowers not at all what one would expect above 4000m. Indeed that was the theme of the afternoon, for we spent all of it between 4000m and 4600m as the road wound its way up and down the usually grassy slopes. There were Yaks everywhere. We were definitely on the Tibetan Plateau now! At such high levels there is in places a kind of permafrost under the soil and where pikas and overgrazing have degraded this there's no normal sward, instead a covering of Kobresia sibirica, a tiny sedge. The combination of this plant and the frozen soil makes any slopes a little slippery! We stopped to look at one such slope, noting two Pedicularis species, one the lovely integrifolia. Then we really had to knuckle down and get to Litang. We came down a little off the high hills but were still at just about 4000m when we entered town. Litang is a wild-west sort of place, the streets rough and ready, and the population almost entirely Tibetan. The ladies and many of the men wear hats, a variety of styles, and the traditional Tibetan dress styles were much in evidence, as were monks, for Litang has a big and important monastery that dominates the town. We settled into the Potala Inn, whose backpackers style entrance and public rooms give little indication of how comfortable the rooms themselves are. A nice place with good staff.

Day 9 July 4th Litang and the Gela La

After a rather more leisurely start than we planned (breakfast didn't appear too quickly!) we headed west out of town. Tesbho was taking us along a road that heads over a couple of passes to

his favourite trekking area on the Geyne Shan, the highest peak of which is over 6200m. The route took us along a wide valley which we eventually crossed to the river, even here we were not far under 4000m above sea level! The road, a good graded one, took us gently up a long valley. Our first main stop was rather marred by rain but we still managed to very much enjoy the strange spidery *Primula tangutica* that Hilary found. Nearby was the yellow black-chequered bell of *Fritillaria przewalskii*. There were clumps of the fine red *Pedicularis integrifolia* and *Ajuga ovalifolia*. Tickell's Leaf Warblers carried insects into a spot where presumably they had a nest. We continued up the valley, the cloud scudding past us, raining on and off. The tall lime-yellow spires of *Rheum alexandrae* were all along this valley and in places put on a magnificent show.

The scene ahead was impressive, a long rocky valley culminating in great bouldery screes and cliffs, here and there still snow patches. The road went up the side of the valley to a pass just shy of 4700m, a very respectable height and with impressively rocky granitic scenery all about. We parked up a little way short of the pass with a lake on one side and on the other a flat boggy area with steep-sided peaks rising from it, these covered in either large boulder scree or incredibly fine degraded silica scree. We spent a couple of hours over lunch enjoying this wild and scenic spot. There were some good birds, no less than three species of accentor with Rufous-breasted, Brown and the lovely Robin Accentor. Citrine (apparently now split as Tibetan) Wagtails were seen too. There were a good number of Himalayan Marmots about. In the boggy areas I saw a couple of snakes, these having a flattened tail indicating that they probably spent a fair bit of time in water.

There were still Rhododendrons flowering at this altitude. Also in the boggy parts were plentiful *Primula sikkimensis* and *Primula secundiflora*. A very pretty blue gentian grew in the moss and there was a lot of the dwarf *Androsace yargonensis* colouring sandy areas white and pink. Fine long-tubed *Pedicularis siphonantha* with red and white flowers was common, the similarly tubed with larger pink-only flowers *Pedicularis przewalskii*, less so. There were other louseworts too, *Pedicularis oederi*, the pale and dark pink flowered *Pedicularis roylei* and on the fine screes a yellow *Pedicularis*. These screes were very fine indeed and had little vegetation, a little *Tibetea himalaica*, some *Ajuga ovalifolia*, lots of what seems to be *Saussurea welbyana*, and a few very dwarfed plants of the ice-blue *Meconopsis horridula* in fine flower.

After lunch we explored the top of the pass itself looking over a bouldery hillside that had plenty of areas of the fine sandy scree too. We soon spotted *Soroseris hirsuta*, not in flower, and also a fine little *Eritrichium*. The delicately perfumed pink crucifer *Solmslaubachia pulcherrima* caused your leader a bit of embarrassment as he pronounced it a daphne! The yellow *Meconopsis integrifolia* was on good form round the back of the hill where I also found *Primula chionatha* whose yellow flowers emerge from a black calyx. A Raven, then a Lammergeier, cruised overhead. We headed on westwards for a while but distance to the second pass and some strong rain showers suggested that returning to Litang and have a decent interval before dinner would be good. En route we passed many Shorelarks, Oriental Skylarks, two Chinese Grey Shrikes, a Golden Eagle, and another Lammergeier.

Day 10 July 5th Tsesum Range

After an unusual breakfast of a great slab of bread, fried egg and some sliced tomatoes (and tea etc) we headed west out of Litang at eight-thirty. We followed the wide valley gradually uphill.

The scenery was sublime. Great wide open Tibetan Plateau landscapes stretching into the distance, only marred slightly by the grey blanket of cloud. Yaks were everywhere, the valley and the slopes dotted with black. Many grazed close to the road. We saw many nomad camps, with tents both new and traditional, and we also saw the old style houses, the yards walled with turf, topped with drying yak dung. There were new houses too, made by the government in an attempt to settle the nomads down (why on earth should anyone want to do that!?), however these were clearly nearly all empty and apparently the nomadic yak herders only use them as retirement homes! The river snaked its way through the wide valley, sometimes close to the road, sometimes far away. The hills (we are talking 4500m+ here!) moved near and far, and sometimes beyond them we saw great snowcapped peaks of 5500+m giants.

We made a couple of stops before the main pass. The first was to explore a roadside cliff and slopes where lots of *Primula stenocalyx* flowered beautifully. This proved a rich spot for we were soon admiring mats of *Pedicularis tricolor*, pink and gold *Pedicularis dichotoma*, and the elegant *Platanthera wolongensis* whose deeply trilobed lip is only bettered by its two neat rounded green white veined leaves. There was a Delphinium, lots of bright pink *Androsace spinulifera*, a mauve *Iris* that was probably *goniocarpa*, and tall *Erysimum* cf *croceum*, the flowers a bright orange-yellow. *Halenia elliptica* was a nice find and we also enjoyed *Dracocephalums*, a small *Lloydia*, the pink *Hypecoum leptocarpum*, and a strange yellow *Saxifraga*, the calyxes covered in sticky black glandular hairs.

The next stop was to photograph a magical show of *Incarvillea mairei*. In fact everywhere one looked, both here and a little down the road, there were sheets of colour, blue from a *Cynoglossum*, yellow from buttercups, mauve from asters and throughout, a sheen of white from a *Polygonum* covered the landscape. A great flock of Red-billed Chough moved over one flowery hillside with Citrine Wagtail on the wires and Brandt's Mountain Finches on the ground.

We drove up onto the pass, around 4600m, the road going over high rhodo moorland, but we didn't stop until we had descended a little for the road bends round and into a most spectacular scene. Ahead of us lay two blue-green glacial lakes surrounded by jagged mountains. We would only see how impressive they were later as the cloud lifted to reveal a huge glacier and yet higher peaks. We parked up and had lunch admiring the scene. The turf and shrubbery around the lakes were full of nice things. Pedicularis were abundant and varied – we found no less than twelve species. There was a stunning long-tubed species with two-tone pink and purple flowers, there was also two other long-tubed species, the yellow *Pedicularis longiflorus* and the pink *Pedicularis* przewalskii. We saw yellow and dark brown Pedicularis oederi, a Pedicularis with white flowers, and a purple tipped galea, and an assortment of purple species including Pedicularis cheilanthifolia. A prize find here, made by Ken, was of a couple of flowering Cypripedium guttatum. Mary also came up trumps with Fritillaria cirrhosa and there was also a little Fritillaria unibracteata in amongst the rhododendrons. There was some fine Asteraceae. A bright orange daisy, at least two purple Asters, two Soroseris including many wonderful 'clubs' of Soroseris hookeriana, and at least three Saussureas including graminifolia and obovallata. There were Meconopsis, notably some horridula on the high screes reached by Tesbho and myself. Down by the lakes was a fine but different flora with lots of pimulas one of which was new, the tiny Primula fasciculata flowering dark pink (with a clear yellow eye) on boggy turf with Sanguisorba minor and a Cremanthodium. Lammergeier's cruised past several times, often very close by, and we also saw Himalayan Griffons, a Golden Eagle and a Black Kite. Accentors were common here, three species noted, Rufous-breasted and

Alpine, and the commonest, Brown Accentors.

We were due to leave at four but I gave Tsebho permission to go round the lake to see what was on that side, but the ground proved difficult even for a Tibetan, so it was that he was nearly an hour late getting back. Several locals appeared while we were waiting and these had been collecting the 'sky caterpillar fungus', a prized and expensive medicine in Tibet. It is a fungus that grows on the bodies of caterpillars and its fruiting body projects darkly from the ground as a narrow club, an inch tall. Not the easiest thing to spot! Tsebho bought two clods of earth, each with one of the sky caterpillar fungus in it – perhaps he needed it after his ordeal with the route back!

The journey back was punctuated by picture taking of the scenes, the yaks, and many attempts at capturing on film the literally hundreds of Himalayan Marmots seen. There were many birds too, groups of Hume's Ground Tits, Citrine Wagtails, Ibisbill that flew along in front of the car, and two pairs of rare Black-necked Cranes.

Day 11 July 6th Litang Monastery and via Tuor Mountain to Daocheng

It looked a little brighter this morning. We had elected to try the hotel's advertised banana pancakes this morning, a choice we regretted, the rice flour pancakes were very heavy and sticky! Back to mo-mos tomorrow please!

We started with a visit to the hugely impressive monastery that dominates the town. This is one of the three most important monasteries in east Tibet and houses two thousand monks. The place looked in sparkling order with a new entrance being built. The main temple and buildings looked superb, ornate on the roofs and with strong yellow and red paint on the substantial walls. Inside were murals and decorations of the highest splendour. Tsebho took us on a tour of the main temple. Outside he took us through the intricacies of the wheel of life showing us the different realms and their significance. He explained the abilities and lives of gods and demi-gods and why the demi – gods were always trying to get control of the gods. Inside the magnificently painted walls showed various deities and their attendants. Tsebho explained something of their significance and showed us the 'thrones' of the Dalai Lama and the Panchen Lama. Litang monastery was founded by the third Dalai Lamai, one of two Dalai Lamas to have been born in Litang. Several monks from the monastery's art college were working on a nearly completed mandella for the big event being held at the weekend to mark the anniversary of the birth of the third Dalai Lama. A Mandella shows a particular deity and his realm, and each mandella is unique, and impermanent, made of coloured sand. We moved into a room which held a huge statue of the Future Buddha, then decamped to the kitchen where we marvelled at the sheer size of the pans and ovens, and I for one coveted the fine tea barrels in which tea is delivered to parts of the monastery. Next Tsebho took us up to the classrooms for the young monks-to-be. The young monks were out of class and were much like children anywhere, and the teachers sat cross-legged outside the classroom looking very learned indeed. We went in and saw the low benches and the school books (pages in between wooden boards), and where the teachers sat. A brazier in the corner kept the tea hot and there were candles wicking from yak butter.

Around eleven we left Litang and headed southwards. We spent a while on a slope a few kilometres out of town just below another monastery. Open conifer woodland harboured

Rhododendron trichostomum, some fine little white gentians and Incarvillea mairei. Moonwort was a nice find. I found a Blood Pheasant up a tree and also had great views of Chinese White-browed Rosefinch. Behind the monastery was a cliff bedecked in prayer flags. We stopped and took photos of this and a group of monks having a picnic. Ponerorchis limprichtii was in flower across the road.

We entered a pleasant valley whose steep slopes had open conifer forest and many flowers. We stopped for a picnic and then spent half an hour pottering about. Ken found the nightshade relative *Anisodus carniolicoides* and Phil a large group of *Metaporia* butterflies mud-puddling by the river. I found a nice orange mushroom, probably not the fine *Lactarius deliciosus* but its close relative *Lactarius integerrimus*. *Lonicera trichosantha* and a daphne look-and-smell-a-like were by our picnic and up on the slope was *Pedicularis cyathophylla* and lots of *Podophyllum* in fruit. This proved a good spot for birds. Chestnut Thrush, Chinese White-browed Rosefinch, Spot-winged Rosefinch and the lovely White-throated Redstart all sat on tree tops in good view. Songar Tits and Red Crossbills were also seen.

Our route took us up towards a pass. We stopped just short and had a productive twenty minutes botany. *Meconopsis lancifolia* had small blue flowers and in the stream was the lovely *Corydalis hamata*, with blue-tipped yellow flowers, one of three yellow *Corydalis* here. *Primula orbiculata* had just gone over but the *Saxifraga melanocentra* here was superb the flowers almost completely red. I found a Robin Accentor's nest with three sky blue eggs lightly flecked with brown. As Hilary watched two Himalayan Marmots through the scope she saw two Tibetan Partridges come into view and over the next ten minutes we had superb views of these normally shy birds.

We drove on to a high plateau, 4500m above sea level, with huge granite boulders as far as the eye could see. There were many small lakes too. There was not a sign of human habitation or indeed works, other than the road itself, for the next ten kilometres, a really wild place, rather reminiscent of the Canadian Barrenlands where the Hood River descends to the Arctic Ocean north of Yellowknife. Our last stop was in a beautiful valley, this time reminding us of the Candian Rockies, the forests rising up valley sides cover in large boulder screes and all the time alongside a beautiful wide 'trout' river. We saw the *grandiflora* form of *Incarvillea marei* alongside the normal form and then it was on to Daocheng, passing Cuckoos and Hoopoes en route. We settled into the excellent hotel there and had a truly tasty meal in the hotel restaurant.

Day12 July 7th First Pass on the road towards Xiangcheng

A delayed breakfast and then unable to get to the first site. Didn't sound a great start, but in fact the second part at least proved fortuitous. We had driven out of town, an eerily quiet town, in the hope of visiting some slopes near a monastery. We soon found why the place was so quiet. Virtually everyone in town it seemed was on the road, either coming from the monastery or waiting by the side of the road. All the way along the road were piles of burning incense (juniper mostly) and everyone was dressed in their best Tibetan! It was an amazing sight, especially with the very solid and big Tibetan houses as a backdrop along the valley. Having pushed our way gently through the throngs heading back into town we then found ourselves part of the procession of vehicles moving slowly up to the monastery, one of the vehicles in front obviously containing the eminent monk or lama who was visiting, probably for a teaching. We did our best

to seem 'royal' and waved at the crowds who waved back and smiled. Eventually our disguise was blown and the police politely pushed us down a side road! Unable to reach the mountainside we'd hoped to, we headed back into town, not at all bothered by the turn of events!

So now we headed southwest towards the first pass on the road towards Xiangcheng. We hadn't gone far before we pulled up by a roadside cliff. There were nice clumps of *Clematis tangutica* glowing yellow by the road and on the cliff itself was a gesnerid in fine blue flower and a scattering of a white saxifrage. Moving up onto the slopes of the pass we made a stop midway up. There was a little *Primula scopulorum* here, a new species for us. Amongst the shrubbery we found a bank with a nice open campanula, and lots of two diminutive white flowers, an anemone and a tiny Lloydia. Loud calls up the slope alerted us to the presence of pheasants, these the fabulous Silver-eared Pheasants. There were half a dozen of these magnificent beasts, their silver-white bodies, blue-black arching tails and red face seemed an incongruous plumage in such an unrelenting green landscape! Behind us two Common Babax sat atop a bush.

We moved up to the top of the pass. This was quite high, around 4750m or thereabouts, as usual, the sign claimed around a hundred metres higher. As we got the lunch out (those superb chili and yak flatbreads again!) I pointed the 'scope at a scree slope and straight on a population of Saussureas! We ate lunch quickly. In fact there was much marvellous flora right by the road up here. There were mats of an Androsace showering the gravels with pink. Round saucers with yellow in the middle were Soroseris gillii. There was a tiny blue Cyananthus and lots of the cushion-forming Silene davidii. A track took us up to the scree containing slope. Along it we started looking at the Meconopsis. This proved a confusing business as there was more than one, or even two, blue species present. There was a prickly form of the horridula group, another prickly in the form of Meconopsis rudis with its purple-based prickles, and two species whose flowers were borne on single scapes and which were much less prickly. Meconopsis lancifolia had almost glabrous leaves and the other species/form had setose leaves and stems. A species of Snowfinch flew in briefly, otherwise birds were not noticeable apart from a superb adult Lammergeier that flew over. Once on the scree slopes we found ourselves amongst blue Corydalis pachycentra, several yellow Saxifragas, and Phyllophyton complanatum, here just starting to flower. We realised we were above the Saussureas so had to go downhill. Once there we found ourselves amongst the most amazing population of these extraordinary daleks of the plant world. There was, spread over two tongues of scree, around a hundred of them. Some of the cones reached 20cm in height, though most were half this. In places several grew together. The pinnate leaves were strongly purple-tinged, the flowers just about to open on some, and the whole covered in matted silver hairs. Growing with them were some very fine Corydalis benecincta. I wandered over the rest of the slopes at various aspects and found a variety of nice plants including a good population of Primula scopulorum, masses of Arenarias, some of the mounds covered in white blooms, and a new Primula with pink, white-centred blooms. There were many butterflies on one slope, the bulk of them being an apollo, and others included an orange clouded yellow and a Scarce Fritillary-like species. Returning I found yellow lilac tipped Corydalis pseudohamata on a scree slope with the nice crucifer Pegaeophyton scaberula.

All back on the pass top we had a cuppa and biscuits before leaving but had not even turned round when we were out of the vehicles again as we spotted *Incarvillea delavayi* on the roadside. Our last stop of the day was down below the pass at around 4200m. We spent a while wandering along the stream or through the rhododendron scrub but found little new except for *Pedicularis*

brachycrania. The displays of primulas were good though. A White-tailed Rubythroat gave excellent views as it sang from a perch, and we also saw Brown Accentor and Severtzov's Tit-Warblers. Then it was back to the hotel and dinner.

Day 13 July 8th Daocheng to Litang

Once again Daocheng was eerily quiet so presumably there was more going on at the monastery. We took breakfast in the hotel and then took to the road. Our first port of call was a monastery perched on the south-facing slopes of the valley. Appearances can be deceptive and we found that it was actually quite a way up to the monastery! We passed two Tibetan Partridges on the way up. The monastery was less spectacular than Litang's but the buildings were beautiful and the whole had a feeling of friendliness and intimacy. We admired the golden prayer drums lining one wall and the little water wheels that ran from such a small stream. Even parking the car we became aware of the birds. A family of White-winged Grosbeaks kept flying down to a corner of a building, something they liked there! Tsebho heard from the monks that the current building work, and a certain amount of trapping meant that the Silver-eared Pheasants were not currently coming to be fed. We were disappointed, but not for long. Tsebho and Nongbu called us back for a 'big bird', pheasants indeed, but not White-eared, these a pair of Blood Pheasants walking right through the monastery complex! We photographed the tall Rheum palmatum and I explored the thick old Quercus aquilifoliaceae which dominated the stream valley, the gnarled old trees only 3m or so tall and with no undergrowth at all. Two laughingthrushes scurried off and I also noted a Chinese Fulvettta. There were Perny's Long-nosed Squirrels, very cute with thick grey fur, and even cuter, a Gansu Pika. Suddenly I came across the White-eared Pheasants, half a dozen of them including a couple of youngsters. They allowed very close approach, though when I tried to show Phil and Hilary they sped off up the slope!

We headed back down to the main road and continued on our way. The road wound up a beautiful valley, the slopes covered in a mix of huge boulders, cliffs, meadows and coniferous forest. We stopped awhile to explore. A boggy area between the wide bouldery river and the road held a fine flora. The sedge bog was dominated by a species like *Carex microglochin*, and on its verges we found such beautiful species as *Pedicularis longiflora*, *Pedicularis rhinanthoides*, *Pedicularis flaccida*, *Geranium chinense* and orchids, the latter including *Gymnadenias* in bud, *Ponerorchis chusea* and the diminutive *Amitostigma monanthum*. Up towards the waterfall was a large Grass of Parnassus, and on the cliffs, *Primula scopulorum*. There were plenty of butterflies about, fritillaries being especially noticeable, but also the black and white admiral species we'd seen earlier and a number of blues and skippers.

Our next stop was up on the high granite plateau that covers the middle twenty kilometres of this route. It is a very high area, around 4400m or higher and has no sign of human habitation. There are granite boulders everywhere, many of them very large and a few perched precariously atop others. Rivers that would look at home in the Scottish Highlands wend their way through the undulating terrain and in places there are many small lakes. We stopped above one such lake, mindful of the big black shower clouds ahead and behind. Stepping out of the vehicle we immediately noted a special plant of this region, *Androsace bisulca*, the only yellow species in this genus. We took lunch and then went downslope to explore. We found the yellow *Androsace* to be very common. There were some fine examples just below the road along with *Pedicularises*

lachnoglossa, przewalskii and others. Soon we found *Cremanthodiums*, this one *campanulatum* with nice hanging flowers. Closer to the lake were numerous ponds which contained some fine buttercups and abundant *Lagotis*. Citrine Wagtails were common here, this *calcarata* form having recently been split as Tibetan Wagtail. Along the edges of the water was much more of the *Cremanthodium*. We wandered over to a sandy shore where back a few yards from the lake was a veritable botanical garden. Fabulous clumps of the bright golden-yellow *Androsace bisulca* mixed with white mounds of *Arenaria*, pink drumsticks of *Androsace spinulifera* and purple *Saussureas*. It was a very colourful scene and not surprisingly it attracted butterflies, a fine 'scarce' type fritillary, a pale lemon and green clouded yellow and a strange blue, the dark female of which had a large white spot in the centre of each upperwing. The sand had been formed into two barchan dunes, the bigger one having a large area of what appeared to be bare sand from a distance. Getting closer we were surprised to discover colonies of the lovely *Cremanthodium reniforme* scattered over these sands. They were a fine sight and made great photos with the gathering black clouds for a backdrop. Walking back we disturbed a few White-tailed Rubythroats.

We moved on through such fine landscapes, braided river valleys, impressive mountains and valleys. Our last stop of the day was close to the top of another pass. Here among huge boulders and flowery slopes we found a few really nice species. There was a very tall form of *Primula tangutica* and abundant *Primula scopulorum*. There were a few each of *Meconopsis lancifolia* and *Meconopsis horridula* and *Fritillaria unibracteata* was just going over. A fine Large-eared or Glover's Pika scurried amongst the rocks. Leslie had a rocky mishap and was bandaged up by Tesbho and Nongbu and then we continued to Litang where Leslie visited the local doctor who bandaged her again. Back at the Potala Inn we found all the girls dressed beautifully, but it wasn't to welcome us, instead for a high ranking monk/lama who was visiting for the big event this weekend and who graced our hotel for the night.

Day 14 July 9th Litang to Yajlang

Morning saw a stream of families bringing their children/child to see the young lama-to-be who was holding court in what is normally the bar at the Potala Inn. It turned out that he was a reincarnate lama and that this weekend would witness the 'handing over' ceremony. This was necessary because the young lad's reincarnate status had been realised/recognized by people from outside his community and this meant that he would have to leave his home and join that community. Breakfast held a surprise too, for my order of eggs, bread, tea and coffee the night before had blossomed into a cake fest, as well as the items on the order. We wondered if was left over from the monk's breakfast? The cake theme became even grander when Ken's 81st birthday cake arrived, a creation of cream with flowers made of icing! We had this at breakfast because I had ordered it a day early and we couldn't realistically transport it all the way to Yajling and expect it to stay in one piece on that road!

We said our second farewell to the team at the Potala, the girls looking rather less elegant this morning in their work clothes! Then it was to the gas station where we found that they had run out of fuel. Only one in Litang as well! Luckily we had enough and Nongbu's tanks would have helped Tsebho's out if necessary. It is always best to be prepared in Sichuan!

We had of course already passed along this route in the opposite direction almost a week before and so were familiar with the grand sweeping vistas of the high hilly grasslands. The road kept us between 4000m and 4600m all day until we began the final descent into Yajling, the town at a seemingly rather low 2800m.

Our first stop saw us walking amongst many hundreds of flowering *Iris cuniculiformis*. This was our first meeting with this fine little mauve-purple iris. Growing with it was *Incarvillea mairei* and *Pedicularis siphonantha*. Shorelarks and Oriental Skylarks flew about. We made a brief stop on the top of a pass where some nuns had set up a shop in a tent. We bought some pepsi and photographed the nearby yak herder tents. Hilary found an Upland Buzzard's wing feather by the tent. Next was a long enforced stop where a truck had become bogged down in some roadworks on a rather wet bit of road. Whilst we waited for the digger and steam roller to get things sorted (which they did, remarkably quickly) I got the 'scope out and started finding out what birds lived in this spot. A pair of Jungle Crows clearly viewed the whole process as just an opportunity. A Godlewski's Bunting sang from a wire and a pair of Hodgson's Redstarts chased away a Tree Sparrow from 'their' house above the road. Two rosefinch species were seen, one unidentified, the other a lovely male Three-barred Rosefinch. We also saw Kessler's Thrush and Rufous-breasted Accentor.

Having passed this spot we looked for somewhere to have lunch on the last pass, given as 4629m by the sign but lower according to our GPSs. It was cool up here with rain showers either side of us, the one ahead still rumbling loudly. Below the prayer flag-bedecked pass we explored an eroded scree-like area where there were some fine plants of the stemless *Pleurospermum nanum* and the lovely white and pink 'raspberry ripple' *Pedicularis decorissima*. We noted a few plants of *Incarvillea delavayi*. I explored round the side of the hill and on to another scree slope. There were lilac, pale blue and indigo blooms of *Meconopsis lancifolia* on the flowery slopes and on the scree I found *Primula gracilenta* and *Ranunculus tanguticus*. A party of Severtzov's Tit-Warblers came close by and there were two singing White-tailed Rubythroats amongst the low rhododendrons.

We left as the rain started again heading down to Yajlang. Again roadworks delayed us a little. At one of them we admired cliff faces with abundant *Corallodiscus flabellatus*. Birds seen on these stops included Yellow-bellied Flowerpecker (feeding on *Loranthaceae*) and a pair of Crimsonbreasted Woodpeckers. Then it was down into town arriving at just after six. We enjoyed an excellent meal in the restaurant next to the hotel.

Day 15 July 10th Yajlang to Kangding

Again the rain had fallen in the night and we awoke to a reasonable dawn, clouds still holding sway at higher levels and a few dropping into the valley bottoms, a quintessentially Chinese scene! We departed at eight-thirty continuing along the main road east and the roadworks continued with us, the road was in a pretty poor state for the first hour or so. We climbed steadily up a valley with steep sides but occasional patches of cultivated land at the base. There were farm houses and hamlets all the way along, each substantial and well-made, though low in the valley there was a lot of demolition and new building work going on, presumably as a result of the widening of the road. We spotted some lilies on top of a bank and stopped. They proved difficult to get to though eventually we found some by the road itself. A very pretty pink and greeny-

white orchid flowered on the bank, the stems rising from a single orbicular dark green leaf. Also here was a large pink and cream *Pedicularis* and two *Codonopsis* species, one *convolvulacaea* and the other I still don't know, the first an open sky-blue campanula, the other a deadly nightshade bell of pale purple centred inside with black and orange!

We moved up the road a few kms to find an area with accessible lilies and succeeded handsomely. There were many plants of *Lilium bakerianum* subspecies *aureumon* the banks and amongst the shrubs. Some were two metres tall, and some had up to eight flowers on a stem. The colour varied a lot, from bright yellow through to a dingy orange-green-brown and the spotting too, some blooms had lots, others were nearly free of them. We also found the lovely little *Spiranthes chinensis* blooming here. A pair of Giant Laughingthrushes vied with a pair of Greybacked Shrikes for possession of a cherry tree. Other birds seen were Oriental Turtle Dove and Chinese Babax. There were a good number of butterflies too, notably various Fritillaries.

We moved on up, trying our hardest not to stop though there was much temptation – new primulas and louseworts passed us by. Eventually I could hold out no longer and we stopped by a nice population of *Primula graculenta* growing with *Parnassia delavayi* and *Pedicularis cyanophylla*. Sooty Tit was in the firs across the road. We made the pass by one, an hour later than intended! A short potter around the top revealed a nice flora on the gravel tundra. Mats of *Silene davidii* vied with some very fine *Lilium lophophorum* for disc space, some of the latter having four flowers per stem! There were more louseworts and also much *Androsace mairei* under the shrubs. A flock of Grandalas flew over, a pity they weren't closer. Easier to see were Tickell's Warbler, Whitebrowed Rosefinch and Kessler's Thrush. Heading onwards we passed many cyclists, in fact for the past two days we'd been seeing a regular trail of them, all heading from the lowlands into the high mountains, brave souls! Our route descended into a valley where we took an excellent lunch in a small town. We were still at 3500m!

Replete, we headed on, suddenly finding ourselves on immaculate tarmac. The big new road from Kangding was wonderful, though after days of rather rough roads, it felt a little strange. Occasionally we saw people on the roadside selling yak butter or cheese and the animals themselves wandered across the highway, just as they did on the tracks of the Tibetan Plateau. The houses along this stretch were beautiful, solid and large. As we neared the pass we met a wall of cloud and so reached the top of the pass over the Zhedou Shan in fog too thick to do anything in. We carried on down to the Black Primula site, but still it was too thick, so on we went. Eventually pulling out of the fog, at least for a while, by a plentiful supply of *Iris* chrysographes. We spent a while photographing the moisture laden dark indigo-violet blooms. There were also yet more Louseworts, indeed during the day as a whole we had seen the following Pedicularis species – densispica, dielsiana, lachnoglossa, longiflora, przewalskii, oederi, rhianthoides, siphonantha, steiningeri, thamnophilla, tricolor, and the aforementioned cyathophylla – and it wasn't even our best day for louseworts! We also noted Maianthemum henryi, as well as the lovely Primula cernua, a lovely blue capitate-headed species. Chinese White-browed Rosefinches were not fazed by the huge trucks rolling past! Then it was down into Kangding, somewhat earlier than expected. We settled into the excellent Gesar Hotel and then went shopping with Tsebho. Solar-powered prayer wheels were the sought-after article and Tsebho soon located some. We also pondered jewellery, beads, Sichuan pepper, dried mushrooms, some nice bags, yurt hangings, and all sorts of other Tibetania. Then it was to dinner, another scrumptious Sichuan set of dishes.

Day 16 July 11th Zhedou Shan & Luo Gou Hai

We started early today in an attempt to catch up on what we missed yesterday afternoon, so at a quarter to eight we were heading up to the Zhedou Shan. It didn't look good. Heavy overnight rain had finished but the clouds were swirling down right to the level of the town and it only seemed to get thicker as we drove uphill. Amazingly a hole appeared in the fog at just about the right point. There was fog below and fog above, but it was clear around our Black Primula site. We pulled up and Tsebho and Nongbu hared off uphill a hundred metres and almost immediately yelled back that they had found it! We got our cameras out and moved up to join them and sure enough, there it was, a most strange flower indeed. The umbels held up to fifteen or so blooms, mostly facing down or sideways and these had petal lobes of an intense black, with a hint of purple. It was somewhat difficult to photograph them due to the angle of the flowers but we managed! In all around fifteen flowering plants were found, most in good condition still, some perfect. This is probably a very rare plant, much of its habitat destroyed or damaged by recent road building. It was only rediscovered in 2006, nearly ninety years after the original collection had been made way off to the west in Tibet.

Growing around it was an amazing variety of other species. There were four more *Primulas*, the widespread *sikkimensis* and *secundiflora*, the blue *Primula deflexa*, and a fine reddish-purple species with tight umbels of half a dozen flowers on shortish stems. There were three *Androsaces*, and several orchids including *Galearis spathulata* and the white *Aceratorchis tschiliensis*. *Pedicularis* included the raspberry ripple *Pedicularis decorissima* and *Pedicularis stenocorys* with yellow redspotted flowers. There were two *Alectris* species, *alpestris* and *pauciflora*. There were several *Corydalis* species, the blue *pseudoadoxa* and some yellow ones, and best of all, a stunning purple, blue and amaranth *Corydalis lhorongensis*. On the slopes were stands of *Veratrum stenophyllum* and in the shrubbery *Iris goniocarpa*. Wherever one looked there were fine flowers. In contrast birds were rather quiet, only Tickell's Warbler, Kessler's Thrush and Rufous-breasted Accentor being seen.

We moved to the top of the pass. Our window out of the fog disappeared and so it was a grey place, however at least we could see twenty metres in front of us, rather than the almost zero visibility of the day before. We walked up the steps towards a pagoda, the touristy thing to do, however we moved just metres off the path and found a magical flora. The first bunch of prayer flags, with all sorts of colours, almost made us miss *Pedicularis variegata*, one of the most spectacular *Pedicularis* of the trip, just a few cm high, but with large pale almost lime-yellow blooms with a dark red galea at the centre, fantastic! Moving upslope we found a carpet of colourful flowers, there were masses of pink or sometimes white Androsace cf minor and with redpurple and yellow Hedysarums and Astragalus. Vibrant red Pedicularis siphonantha's long-tubed flowers were a fine sight and we found many more of this amazing genus – yellow *Pedicularis* oederi, and two fantastic species with white flowers set off by red galeas, both with tight heads of flowers close to the ground, so similar, yet very different when one looked closely, and I still haven't worked out what they are! There were squat blue Meconopsis henryi scattered throughout, lots of yellow from Ranunculuses and in particular several small Saxifrages. Dark red mats of Sibbaldia purpurea mixed with luminous blue Corydalis pseudoadoxa. There were several other species of these lovely flowers too, two yellow species, and on the screes a fantastic purple and dull blue species with large heads of flowers. There were little groups of Primula amethystina and on the big patch of scree some fine heads of Saussurea medusa. Rosy Pipits were about the only

birds on view, but we couldn't see very far!

We descended a little for lunch. Then decided to go and give Luo Gou Hai a try. This meant driving back down through the fog to Kangding again and then up again into the mountains. The weather didn't look at all promising but we thought we'd give it a go! The cloud was swirling around just upslope when we made our first stop. We spent an hour and a half exploring a rich slope here. There were many orchids with familiar European species like *Epipactis helleborine*, *Gymnadenia conopsea*, *Malaxis monophylla* and *Coeloglossum viride* mixing it with less familiar species such as *Oreorchis patens*, *Gymnadenia crassifolia* and *Gymnadenia orchides*. John and Phil found a marvellous group of *Notholirion bulbosum*, tall spires covered in small lilac-blue lily blooms. There was a tall yellow *Pedicularis urceolata* type and pale rose *Pedicularis sima*. Huge yellow blooms of *Trollius yunnanense* were an impressive sight and there was a nice stand of rich blue *Primula cernua*. We started on up the slope but the weather was now closing in so we decided to head back to base, it was already six o'clock and by the time we'd got into our hotel the rain had started in earnest!

Day 17 July 12th Kangding to Chengdu

A wet night continued into the morning so we set out from Kangding with wet slippery roads. It was a pleasure to feel such smooth tarmac below us. The cliffs and steep hillsides were draped in thick vegetation bursting with species richness – we could have stopped anywhere though the road made this difficult. The river was an intense, large, violent mass of brown water plunging headlong down the valley at an improbably destructive velocity. Ribbons of cloud hung across the slopes and cliffs. Another quintessentially Chinese scene.

We spotted our first roadside lilies, behind a two metre wide strip of maize. These we thought to be *Lilium davidii* with its orange turks-caps but the fimbrillate nectaries suggest it may be *Lilium rosthornii* instead. We continued, spying lilies in difficult situations before suddenly a mass of huge lilies appeared on a steep slope above us. This steep slope however had a beautifully constructed set of steps zig-zagging up it, and the lilies started only a few metres up, so we were soon amongst them. It was a spectacular show. Many of them approached two metres in height and had up to five giant twenty cm long funnel shaped blooms. These were white but edged with brown-purple marking outside and with a bloom of yellow from the pollen inside. There were also patches of the lilac form of *Ophiopogon bodinnieri* and the blue-flowered shrub *Ceratostigma minus*. Russet Sparrows were common.

We passed Luding, of the chain bridge and the Red Army's march, then it was uphill again. This road, only a few years ago, would have taken a day to go over the 4600m pass on a terrible road. But now its fine tarmac and a five km long tunnel and you are all done and dusted in an hour! However first more lilies. This time a large funneliform yellow species with scattered red dots. Some of these had up to five flowers and were a metre and half tall. Superb, but we can't work out what they are! Growing with them was a nice stand of *Pedicularis rex*, of the yellow nominate form. Also an orchid that looked like a giant frilly *malaxis* with green deeply trilobed flowers, this *Peristylus jinshuanicus*. Japanese White-eye was seen, two of them carrying food for unseen nestlings, as well as Brown-breasted Bulbuls and Red-rumped Swallows. We missed our chance to go through another set of roadworks before the tunnel at this point, traffic police info was

unnecessarily gloomy, so a quarter of an hour later and we were off through the tunnel. Coming out the other side of the mountain we were entranced by a verdant gorge where we could have stopped a million times, but we were already getting late. So we passed what were probably *Lilium taliense* and *Dendrobium monolithoforme* without stopping!

Lunch was at a fish restaurant by a lower river. This was excellent, fresh catfish, but was the spiciest dish we had on the whole trip, with large amounts of both chili and mouth-numbing Sichuan pepper. Indeed the food had been rather less than spicy for much of the tour, at least for those of us who like this. This fish dish had me in tears! A strange and very bedraggled swallowtail was put somewhere quiet, we thought at first it must be dead. Another swallowtail, the superb dark Chinese Peacock came down to sip diesel or petrol by the parking area, this butterfly has green-blue and red markings when you see it close. Indeed this was a good spot for butterflies with a "flat' skipper with nice markings and a superb large *Amathusiid* the highlights. One of the latter perched in a small tree with orange fruits coming straight out of the branches. We were surprised to find this was in the nettle family, Debregeasia orientalis. There were other butterflies too, blues, several whites and a number of browns, and the fine white and black 'marbled white' look-a-like. A flock of Sooty Tits greeted us on arrival and up amongst the herbage I found a delightful flock of Vinous-breasted Parrotbills mixing it with another Aegithalos tit, this time the pretty orange, black and white spot-breasted form of Black-throated Tit, as well as a single diminutive Grey-crowned Warbler. On the roadside bank we found a most lovely orchid with large creamy flowers and a lip marked with red, this Cymbidium faberi. Amongst the many exotic looking leaves growing above the bank we found another orchid, this time with thick spires of white flowers, Calanthe davidii.

After lunch we had to knuckle down to the long journey to Chengdu, the road following a valley gently now down to the lowlands and once there we entered the modern world again and passed through a toll booth onto a motorway to Chengdu, which took us the last 220km to our destination with hardly a vehicle in sight until we reached the city itself. We negotiated the city's traffic, not too awful at this time of evening, and were in the hotel shortly after eight. Tsebho and Nongbu took us across the road to the rather excellent restaurant there and treated us to a final night's Sichuanese Cuisine – a splendid meal.

Day 18 July 13th Departure

A fairly early departure and then we were all off to our various homes.

Systematic List Number 1 Flora

The taxonomy and systematics of the following list follows the Flora of China, many volumes of which are now published in English, and which is available on line at http://hua.huh.harvard.edu/china/

Pteridophytes

Adiantum capillus-veneris Wolong

Adiantum davidii Common in parts of western Sichuan, typical maidenhair fern Athyrium otophorum Wolong. Lady fern with pinnules having a semi-hastate base

Botrychium lunaria scattered in alpine turf

Botrychium matricarifoiliumnear DanbaCheilanthes argenteaWolong[Dryopteris fragransWolong]Dryopteris fructosaWolong

Gymnocarpium remotepinnatum Wolong. Very elegant oak fern

Hypodematium crenatum Wolong.

Lepisorus angustus Wolong. single long pinnae.

[Osmunda claytoniana Interrupted Fern. Luo Gou Haii]

Polystichum pseudorhomboideum Wolong

Polystichum stimulansWolong. Holly Fern-likePteridum aquilinumBracken. Scattered

Pteris dactylina Wolong. Narrow palmately arranged fronds

Pteris vittata Wolong

Taxaceae

Taxus yunnanensis Wolong

Pinaceae

Abies georgicanoted in the Balang Shan areaCedrus deodorascattered in upland forests

Larix potanini scattered

Salicaceae

[Populus nigra or something similar as the common roadside poplar on

grasslands around Ganze]

[Populus szechuanicusmagnificent trees on the descent from Langdu]Salix magnificalooks like a rhododendron! 2011 Wolong

Betulaceae

[Betula chinensis red-barked species. Wolong and Luhuo areas]

[Betula pendulaDanba area]Betula utiliswidespread

Myricaceae

[Myrica rosea Long racemes of pink flowers, shrub along rivers. Near Ganze]

Phytolaccaceae

Phytolacca polyandra common around Wolong

Juglandaceae

Pterocarya delavayi wingnut sp. Wolong area

Fagaceae

Quercus aquilifoliaceae Above Wolong, Balang Shan and Yajlong areas, 2011 same

Ranunculaceae

[Aconitum gymnandrum Widespread roadside species with deep blue-purple flowers]

[Aconitum polyanthum fine light blue monkshood]
[Aconitum tangutica Fine dwarf species on Dzo Dala]

Anemone demissa A hugely variable species with several distinct forms, the

following two of which were widespread

Anemone demissa var major Striking white variety with large dissect bract. Scattered

Anemone demissa var villosissima Sky blue variety common Litang, Kangding, etc

Anemone hupehensis Yajlong area

Anemone obtusiloba Lu Gou Hai. Reasonably frequent in 2011

Anemone rivularis Very wide inflorescence with long pedicels and purple backed

white flowers. Wolong and Danba areas

Anemone rupestris Extensive drifts on grasslands in white to pale yellow

[Anemone rupestris var gelida Dwarf plant on Cho La pass, white flowers]

[Anemone tomentosa Mid-altitude valleys e.g. Rilong. Leaves heavily felted beneath,

pink flowers]

Anemone trulliifolia Dzo Dala and Cho La passes. Unusual oblong leaves with three

Points. Frequent on the plateau in 2011

[Anemone vitifolia Pink flowers, mid-altitude forests, roadsides in wetter areas.

Danba]

[Anemone yulongshanica Dzo Dala and Cho La passes. Variable flower colour]

[Aquilegia rockii Widespread and scattered purple flowers.]

Batrachium bungei A crowfoot, occasionally seen in ditches and ponds. Tsosum

Mountain in 2011

Caltha palustris Widespread in wet areas [Caltha palustris ssp umbrosa Xiling Shan in wet areas.]

Caltha scaposa common. Dwarf highland species with large flowers

Cimicifuga foetida Rilonguan in bud. Yajlong in 2011

[Clematis akeboides Ganze, greyish rounded leaves, brownish purple backed flowers.

Not seen in 2010]

[Clematis delavayi small shrub. Pinnate leaves and large white flowers. Noted

alongside the Yalong River and near Yajliang]

Clematis montana showy shrub with cascades of 4-petalled flowers. Wolong and

Kangding areas

Clematis peterae Wolong

Clematis rehderiana common mid altitude species with yellowish campanulate bell-

flowers. Zhedou Shan in 2011

Clematis tangutica large yellow bell flowers, acute tips to corolla segments, strongly

scented. Widespread in higher valleys

Clematis tibetica frequent along roadsides, often prostrate but also scrambling

brownish to orangey-yellow, similar to tangutica but smaller

flowers. Jainxi Pass in 2011

[Delphinium beesianum large deep blue flowers with long spurs, Chola Pass. Not seen in

2010]

[Delphinium sp fine species with lilac-blue flowers on Xinjun Pass. Not seen in

2010]

Isopyrum anemonoides Balang Shan etc. Delicate white flowered buttercup cum anemone!

Oxygraphis glacialis scattered in highlands, a minature celandine

Paeonia delavayi in fruit on the Zhedou Shan

Paeonia veitchii fine species with dissect leaves and deep pink flowers,

widespread especially on areas of scrub/larch adjacent to

grasslands from Wolong westwards

Paraquilegia microphylla lovely pure white form on Xiling Shan. Balang Shan and Jainxi Pass

in 2011

Ranunculus cangshanicus mires on Tsosum Mountain

Ranunculus dielsianus red sepals, small ternate leaves, single flowers. Mires on Tsosum

Mountain

[Ranunculus diffusus leaflets ternate or 3-parted. Looks like an annual (but isn't) and

grows in grassy places by streams, lowlands. Noted at Chengdu

Panda Centre]

[Ranunculus glabricaulis leaves 3 sect nearly to middle. Sepals dark purple or greenish.

Dwarfed plant. Cho La Pass]

Ranunculus japonicus japonicus rather like meadow buttercup Ranunculus acris. Wolong and Balang

Shan

Ranunculus melanogynus black carpels make this a very distinctive species. Plant dwarf,

leaves glabrous 3-partite reniform. Dzo Dala. Not recorded in Sichuan by the Chinese Flora (though in S Xizang) but given how easy it is to recognize...in 2011 what appeared to be this species

was seen on Tsosum Mountain

Ranunculus membranaceus basal leaf oblong, undivided, hairy. Scattered in 2011

Ranunculus cf. menyuanensis Tuor Mountain – very like this species but a long way from its

known stations

Ranunculus nephelogenes basal leaf undivided, glabrous, ovate. Petals rounded. Dzo Dala.

Tsosum and Tuor Mountains in 2011

[Ranunculus petrogeiton dwarfed plant, basal leaves 3-set, thin, glabrous. Balang Shan]

Ranunculus tanguticus basal leaves 3-sect, further divided with narrow segments.

Balang Shan, probably elsewhere

Ranunculus yunnanensis entire slightly crenate leaves. Tuor Mountain

Semiaquilegia ecalcarata quite frequent alongside streams and rivers in western Sichuan,

looks very much like an Aquilegia with bits missing

Thalictrum alpinum diminutive, flowers in a raceme, leaves basal. Balang Shan &

Dzo Dala. Former in 2011

Thalictrum delavayi tall lilac-pink species. Abundant along valleys in Western

Sichuan

Thalictrum foliolosumgreen-tinged yellow sepals, metre tall. Danba area[Thalictrum javanicumcommon in Danba area. Yellowish green flowers, tall]

[Thalictrum omeiense tall white species. Danba area]

[Thalictrum przewaltzii Tall white sp in Dege area and elsewhere. Not seen in 2010]

Thalictrum rutifolium purplish-tinged sepals, dwarf plant. Jainxi Pass [Thalictrum virgatum Delicate green flowered species. Not seen in 2010]

[Trollius farreri purple backed golden flowers. Leaves cut almost to base. Ganze

area, esp Dzh Dala]

Trollius ranunculinus typical deep yellow trollius, common, dissect palmate leaves.

Commonest in high areas

Trollius yunnanense Ganze, etc, palmate-parted leaves. The common globe-flower at

mid-altitudes. In 2011 on Balang Shan, also Kangding area

Berberidaceae

Berberis dictophyllaZhedou Shan[Berberis jamesianaWolong area]

Epimedium davidii between Danba & Yajlang

Podophyllum hexandrum noted in fruit, various places, woodland edge

Papaveraceae

[Meconopsis impedita

Meconopsis pratii

Digranostigma leptopodium drier roadsides at mid-altitudes – like a large flowered Greater

Celandine

Hypecoum leptocarpum pink! Frequent on roadsides on the plateau

[Meconopsis delavayi ?or at least similar to this! Balang Shan. Tall stems with nodding

purple-lilac flowers]

Meconopsis henrici Beautiful large lilac-purple flower near Luhou and Ganze and

also on the Zhedou Pass. Like *lancifolia* except flowers larger and held more upright and with whitish anthers. In 2011 on Zhedou

Shan

Meconopsis horridula Luo Gao Hai. Solitary blue flowers on many scapes, leaves all

basal, plant very prickly with straw-coloured spike-like hairs with

dark bases. Base of scree. Noted on many passes in 2011 Between Litang and Yajlang. Grassy passes. Leaves all basal,

flowers singly on scapes, bristly plant, flowers purple with white

anthers]

Meconopsis integrifolia abundant above 4000m on Balang Shan and widespread

elsewhere – distinctive three veined leaves. Yellow flowers.

Widespread in 2011.

Meconopsis lancifolia Common purple species seen on Balang Shan. Lanceolate leaves,

flowers looking downwards, yellow anthers. Widespread in 2011 between Danba and Luhuo. Bristly plant with leaves both basal and cauline and with inflorescence with many blue flowers, In 2011

between Danba and Yajlang

Meconopsis punicea perhaps the most extraordinary species seen - red with curious

downward pointing petals, on Balang Shan and north of Luhuo. In

2011 was seen only, but abundantly on the Balang Shan

Meconopsis quintuplinervia on the Dzo Dala south of Ganze, lovely nodding lilac bells. In 2011

on the Balang Shan

Meconopsis racemosa fine blue species common in many places e.g. Ganze, Dege. Blue

to purplish spicate with very bristly leaves. Chola Shan population has distinct white spots at bristle bases and may be a different taxa. Somewhat difficult to be sure as every population seems different but in 2011 plants on the Jainxi Pass, Tuor Mountain and Zhedou

Shan all seemed to fit this species.

Meconopsis rudis Balang Shan, spicate with blue flowers and dark purple spots at

bristle bases. 2011 seen on the Balang Shan, pass between

Daovheng and Xiengcheng, and Jainxi Pass

Meconopsis sinomaculata 2011 seen between Danba and Yajlang

Fumariaceae A stunning array of Corydalis were seen – many not identified!

[Corydalis adunca Luhuo area. Roadsides with orangey flowers]

[Corydalis appendiculata Dark blue species with orbicular broad-lobed leaves on Xiling

Shan]

Corydalis atuntsuensis Lovely elegant, slender yellow species in alpine turf south of

Ganze and Zhedou Shan area. Dark green, narrow leaves. 2011

between Litang and Daocheng

Corydalis barbisepala Balang Shan. Flowers clear azure-blue to purplish-blue, very

dense flowerheads. 2011 Balang Shan

Corydalis benecincta between Litang and Yajlang. Fabulous scree dweller with

glaucous-blue rounded leaflets and flowers and large pale pink

blue-purple tipped flowers. Several high passes in 2011

Corydalis calcicola 2011 screes on the Jainxi Pass. Purple to slate-blue flowers inner

petals with a blackish-purple apex

[Corydalis chamdoensis Taller species with pale yellow flowers with arcuate recurved

spur, narrowish spikes, Ganze Pass near seeps 2008]

[Corydalis conspersa Cho La Pass. Similar to hamata but differences in bracts and

overall 'jizz', very leafy and tall.]

Corydalis curviflora Balang Shan. Electric blue flowers, variable in stature. 2011 Balang

Shan

[Corydalis dasyptera Lovely deep yellow species on the Dzo Dala and Chola Passes,

dense inflorescence, divided glaucous leaves with acute tips to

leaflets]

Corydalis davidii 2011 frequent in the Danba and Yajlang areas, also Litang. Tall

species with winged stems, pinnate bracts, yellows flowers

Corydalis densispica 2011 Litang area. Yellow orange-tipped flowers, tall, flabellate

bracts

Corydalis elata 2011 Wolong. Elegant 'leggy' blue-flowered Corydalis from the

mid-altitude forests

Cho La Pass. This is the pink/purple form with purple veins (the

possibly distinct *Corydalis crassicalcarata*), leaflets glaucous one side, green the other, pinnate, 3 pairs of leaflets. 2011 was frequent on

high parts of the plateau

Corydalis flexuosa Dainty blue species in forest at Wolong. Ferny leaves. 2011 Wolong

and near Danba

Corydalis hamata Handsome dense flowered yellow species with blue mark at

flower tip. Noted on the Dzo Dala and Litang area. Spreading mats

in rocky seeps. Tuor Mountain in 2011.

Corydalis jiulongensis 2011 Between Litang and Daocheng. Yellow crested flowers, outer

petals darker

[Corydalis kokiana Very fine tall blue species on east side of Chola Pass]

[Corydalis lathyrophylla Cho La Pass. Lavender pink-tinged flwrs. Pinnate leaves, two

paired. Subspecies dawuensis?]

Corydalis lhorongensis 2011 same areas as Black Primulas on the Zhedou Shan. Blue and

amaranth flowers, purple tip to petals. Deeply divided bracts

[Corydalis lidenii ?probably this species. Cho La Pass. Pale purple flowers, bracts

rhomboid, small plant]

Corydalis linarioides Fine yellow flowers with orange tips, variable narrow leaves.

Luhuo and also common in the Zhedou Shan. Part of the linarioides

group which includes similar but smaller atuntsuensis. 2011

frequent on the plateau

Corydalis linstowiana 2011 between Danba and Yajlang. Blue flowers, fimbriate white

sepals, clearly stalked bracts ternatisect with sharply dentate lobed.

Corydalis madida 2011 above Wolong. Chasmophyte. Reddish stems and creamy

white flowers

Corydalis melanochlora a stunning species on Balang Shan pass c4500m. Dense sky blue

to light blue flowers with finely cut leaves sprouting from scree.

2011 Jainxi Pass

Corydalis pachycentra Balang Shan. Brilliant indigo blue flwrs with upper petals tipped

with white. 2011 noted on several of the higher passes

Corydalis panda Balang Shan. Flowers blue, inner petals often white at tip. 2011

Balang Shan

[Corydalis porphyrantha tallish dark purple flowered species. Between Litang and Yajling]
Corydalis pseudoadoxa Zhedou Shan and Luo Gou Haii. Very dwarf, blue flowered. 2011

Zhedou Shan and Luo Gou Haii. Very dwarf, blue flowered. 2011 Zhedou Shan

Corydalis pseudocristata Balang Shan, mid-level meadows. Robust flowers spike with

yellow orange-tipped flowers and obvious abaxial crest. 2011

Balang Shan

Corydalis pseudohamata Pass between Daocheng and Xiangcheng. This species is not

recognized by the Chinese flora but appears distinctly different

from hamata?

[Corydalis rorida Cho La Pass. Bright blue flowers, alpine species, pinnatisect

bracts

[Corydalis scaberula Screes on the Dzo Dala, lovely pale yellow species with reddish

dissect leaves with rounded lobes, on scree. One of the finest

species seen]

[Corydalis schaereri Pretty pink species with long upright pointed spur at Wolong,

Sichuan. 2007]

[Corydalis trachycarpa between Litang and Yajlang. High screes. Another fantastic

species with dark grey-green leaves the wide lobes broadly

crenulate. Flowers pale pinkish, purple tipped]

[Corydalis trifolia dark blue species with purplish-green tri-part leaves, Luo Gou

Haii]

Loranthaceae

Taxillus delavayi Jainxi Pass

Brassicaceae

[Cardamine griffithii Wolong only]

Cardamine macrophylla Very common and widespread
Cardamine impatiens 2011 lower parts of the Balang Shan

[Cardamine microzyga pratensis-like species deeper purplish-pink flowers on the first

pass in the Tagong grasslands en route to Litang]

[Dipomia iberidium Cho La, Litang, Zhedou Shan etc

[Draba jucunda Tight-growing species with typical bright yellow flowers, Balang

Shan and Xinjun Pass, etc]

[Erysimum crocea Orangey-yellow wallflower near Rilong]

Tall lilac-pink flower with expanding inflorescence on high Megacarpea delavayi

passes near Ganze, Litang and Kangding. 2011 frequent

throughout

White cress on Xinjun Pass. 2011 on pass between Daocheng and Pegaeophyton scaberula

Xiangcheng, possibly also Balang Shan

Solmslaubachia pulcherrima Chola Pass. 2011 on the Gela La Pass, in seed on Jainxi Pass

Violaceae

Viola biflora widespread, yellow flowers, rounded leaves. 2011 widespread

Crassulaceae

Rhodiola alcea 2011 Zhedou Shan. Yellow.

[Rhodiola crenulata Cho La Pass. Red, like a large sedum] [Rhodiola dumulosa Rose and white species Xinjun Pass] Rhodiola fastigiata widespread. 2011 Balang Shan Sedum filipes Danba area. Stunning red species

Sedum oreades Balang Shan, also Dzo Dala and Cho La. Small dense species with

whitish-yellow flowers. 2011 Wolong

Saxifragaceae

[Chrysosplenium camosum Cho La Pass]

[Chrysoplenium griffithii Pretty-leaved plant on Balang Shan and scattered elsewhere.

Other species of *Chrysosplenium* seen to]

[Parnassia davidii staminodes with globose glands at apex. Flowers white, purple-

brown punctuate. Yalong River]

Parnassia delavayi widespread. White 'normal-sized' flowers. 2011 Kangding area [Parnassia lanceolata

green flowers, pointed petals. Small. Dzo Dala and Cho La

Passes]

Parnassia pusilla diminutive species with greenish flowers. Scattered throughout.

2011 same

[Parnassia viridiflora green flowers, purplish-veined. Between Yalong River and

Rodgersia aesculifolia Common in moist forests at Wolong large pinnate-leaved herb

> with dense pink flowers on branched spikes. 2011 Wolong area Small cushions with yellow flowers on Balang Shan, Dzo Dala

[Saxifraga aurantiaca

and Cho La Passes]

??maybe this species. Dwarf cushion-forming species with [Saxifraga finitima

yellow flowers. Balang Shan]

Saxifraga fortunei West of Danba and Kangding in lower valleys. White flowers

with pronounced lower petal, moist shady places. 2011 Wolong

and Danba areas

Saxifraga pseudohirculus Small orange flowers on slender tallish stems Balang Shan &

Cho La Pass. Many other yellow flowered species were seen but

not identified. 2011 most high passes

Saxifraga melanocentra Lovely white flowered species with darker red markings and

black centre Balang Shan, Xinjun Shan, Zhedou Shan etc – the form

on the latter was particularly stunning! 2011 widespread

Saxifraga rubescens 2011 scattered. Like fortune but with rusty undersides to the leaves Saxifraga sibirica

white flowers, kidney-shaped leaves. Balang Shan. 2011 also Litang

and Jainxi areas

Saxifraga unguiculata 2011 Balang Shan

Tiarella polyphylla Pretty white flowered species at Wolong and other dense

woodlands 2007. 2011 just at end of flowering period

Caryophyllaceae

[Arenaria barbata large flowered alpine on Xinjun Pass]

cushion forming species covered in small white flowers. Zhedou Arenaria kansuensis

Shan. 2011 on a number of high passes.

[Arenaria oreophila cushion forming. Balang Shan]

Arenaria polytrichoides cushion forming species covered in small white flowers on Dzo

Dala and Co La Passes. 2011 on the Gela La Pass

Arenaria smithiana 2011 Jainxi and Gela La Passes

Cerastium fontanum 2011 Wolong

Dianthus superba Zhedou Shan. Dissect petals. 2011 same area [Silene aprica Unusual dwarf species in wet areas on Xinjun Pass]

Silene davidii Lovely mat forming species with pink flowers on Zhedou Shan

and passes just west of there. 2011 widespread

Silene himalayensis petals almost included in the inflated calyx. High passes in west

of region. 2011 widespread

Luhuo area] [Silene hupehensii

Rutaceae

Xanthoxylum bungeanum armed small trees, leaves pinnate. 2011 near Danba

Polygonaceae

Koenigia forestii 2011 Gela La Pass. Not in China flora Koenigia islandica 2011 various places on the plateau

Koenigia forestii 2011 not sure where John and Hilary saw this? Not in China flora

Oxyria digyna common roadside species in highlands

Oxyria sinensis frequent in valleys off the main plateau. Grows much more upright

than digyna.

[Polygonum albertii 'Russian Vine' Climber at mid-altitudes]

Polygonum macrophyllum 2011 10cm long linear lanceolate leaves. Widespread in plateau

grasslands

Short-cylindrical to globular white flowers, Balang Shan, etc, [Polygonum spherostachyum

widespread]

Polygonum viviparum common in Litang area

Rheum alexandrae damp areas in highlands e.g. Litang, near Yajling, Kangding etc dwarf species with red-veined leaves frequent on the plateau Rheum delavayi

Rheum likiangense large-ish species with big oval leaves. Gela La area

Rheum palmatum scattered along valley en route to Zhedou Shan, cultivated for

Medicine. Spectacular plant!

Urticaceae

Boehmeria spp 2011 frequent in valleys Dobregeasia orientalis 2011 Luding to Ya'an

Geraniaceae

[Geranium delavayi pale form. Balang Shan. Some regard this as refractoides but

probably a colour form of this species]

[Geranium lambertii blackish filaments and pale pink petals. Cho La Pass]

Geranium moupinense widespread at mid altitudes, e.g. Wolong. Large flat pink flowers
Geranium pogonanthum like delavayi but petals white to pink or purplish and longer

petals. Wolong

Geranium sinense 2011 plants that looked much like this species were frequent in the

Litang area

Onagraceae

Chamaerion angustifolium scattered. 2011 near Danba

Epilobium sikkimense 2011 Janxi Pass. Wet gravelly areas.

Apiaceae

[Heracleum candicans large umbellifer with fine-cut leaves for a Heracleum. Balang

Shan]

Pleurospermum amabile 2011. Pass between Daocheng and Xiangcheng, Fantastic large

bracted species, the bracts strongly feathered with purple

Pleurospermum benthamii large 'colourful' umbel common at Wolong and Balang Shan. 2011

Balang Shan

[Pleurospermum biclor Litang and Zhedou Shan]

[Pleurospermum astrantioideum dwarf Pleurospermum tinged purple-red all over. Zhedou Shan]

Pleurospermum nanum 2011. Jainxi Pass. Very dwarfed.

Sanicula hacquetioides 2011. Like a Hacquetia! Middle slopes of the Balang Shan

Tetrataenium nepalense Large white umbels and broad-lobed pinnate leaves reminiscent

of Heracleum. 2011 Tsosum Mountain

[Trachydium roylei stemless species. Between Litang and Yajling]

Araliaceae

Panax bipinnatus 2011 near Danba

Panax pseudo-ginseng 2011 Lower slopes of the Balang Shan, and near Danba

Thymeleaceae

Daphne bholua/retusa presumably this species below Balang Shan and elsewhere? 2011 –

same area

[Daphne tangutica north of Ganze]

Stellera chamaejasme common in pastures, alpine turf in white and greenish cream

forms mainly. 2011 as usual widespread. A striking pink and

orange form on Luo Gai Hai

Hypericaeae

Hypericum forrestii common on roadsides

Actinidiaceae

Actinidia kolomikta climber in shrubberies in mid-altitudes e.g. Wolong

Euphorbiaceae

Euphorbia bulleyana2011 Balang Shan[Euphorbia helioscopafamiliar weed][Euphorbia nematocyphalocally common]

[Euphorbia pekinensis scattered with orangey-green bracts]

Hydrangeaceae

[Deutzia calycosa pink-flowered species at Wolong and west of Danba]

[Deutzia glomeruliflora mid-elevations e.g. Wolong]

Deutzia longifolialong-leaved! Common in the Wolong, Rilong and Danba areasHydrangea asperaWolong and Rilong. A large white form and smaller pink form

are both subspecies of this widespread species

Hydrangea heteromalla west of Danba where some fine plants, a white lacecap

[Philadelphus purpurascens distinctive smaller flowered species with dark reddish purple

pedicels and calyces, leaves hairy on ribs beneath, north of Luhuo]

Philadelphus subcanus scattered. The commonest Mock Orange, leaves with short

adpressed hairs

Rosaceae

Cotoneaster microphyllus widespread. 2011 only noted from the Zhedou Shan Duchesnea indica 2011 common at Wolong. Yellow-flowered strawberry

Fragaria orientalis very common on banks in the Wolong area

Potentilla anserina Luhuo. 2011 scattered
[Potentilla bifurca near Ganze. Pinnate leaves]

[Potentilla coriandrifolia alpine turf]

[Potentilla eriocarpa dense cushion forming shrub on Dzo Dala. The very different

'lax' subspecies tsarongensis on Cho La Pass and Zhedou Shan]

Potentilla fruticosa widespread yellow flowered shrub

Potentilla glabra widespread shrubby species with white flowers. 2011 Balang Shan

[Potentilla leuconota denser leaves than coriandrifolia Zhedou Shan]

Potentilla microphylla 2011 Gela La Pass

Potentilla stenophylla pinnate toothed leaves. Luo Gou Haii & Zhedou Shan [Princepia utilis spiny arching branched shrub with bluish oval berries on

Yulong]

Rosa moyesii 2011. Zhedou Shan, Kangding etc. Deep red flowers

Rosa multiflora handsome dense flowered species, Wolong area. 2011 also noted

between Kangding and Ya'an

Rosa omeiensis impressive thorny stems. Lower slopes of Balang Shan – not in

flower

Rosa sericea upland species with white to cream flowers

Rosa sweginzowii fine deep pink-red species. Lower Balang Shan and Zhedou Pass.

2011 lower Balang Shan

[Rosa willmottiae light pink rose. Rilonguan]

Rubus niyalamensis 2011 Balang Shan. Dwarf white alpine species.

Rubus thibetanus 2011 frequent Wolong

Sanguisorba filiformis scattered in wet areas. Tiny flowerheads. Between Danba and

Luhou. 2011 noted at seveal places on the plateau

Sibbaldia purpurea 2011 between Rilong and Danba

Sorbaria arborea foamy cream flower masses on shrubs with large pinnate leaves.

Wolong. 2011 also noted Danba, Kangding etc

Spenceria ramalana widespread and spicate 'potentilla'. Covered some hillsides near

Ganze and Litang. 2011 very common on the plateau

Spirea bella 2011 frequent on the plateau

[Spiraea schneideriana Wolong area]

[Spiraea myrtilloides between Litang and Yajling]

Fabaceae

[Albizia julibrissum roadside tree at lower altitudes]

Albizia mollis Wolong. 2011 probably this species between Kanding and Ya'an Astragalus acaulis 2011. Acaulescent. Pale sulphur-yellow flowers in a bunch at the

base of the leaves. Frequent on the plateau

Astragalis alpinus 2011. something that looked very like this species was frequent in

the plateau grasslands but according to the China Flora this species

only occurs in Xinkiang within China?

Astragalus rigidulus 2011. Something very like this species with red-purple flowers on

the Zhedou Shan

[Astragalus tongolensis shrubby species with creamy flowers near Rilong]

Astragalus yunnanensis yellow and white flowers with black hairs on calyx, alpine turf,

many passes – same in 2011

Bauhinia sp a white flowered creeper seen near Dege

Bauhinia brachycarpa 2011 various areas. A dwarfed shrub at altitude, small tree lower

down

Caragana jubata spiny highland shrub with pink flowers, a similar fine species on

Ganze Pass. 2011 Gela La Pass

[Caragana leucophloea yellow flowers with red lines spiny Rilong, Danba & Luhuo

areas

[Caragana versicolor pink flowered spiny shrub on Zhedou Shan]

Cicer arietinum naturalized. 2011 Wolong

Hedysarum pseudastragalus Long racemes of purple flowers, leaves with 11-17 pairs of leaflets.

2011 Frequent in the plateau grasslands

Indigofera balfouriana pink shrub. Danba and Luhou areas. 2011 many mid-level areasIndigofera pendula elegant long racemes. 2011. Between Kangding and Ya'an

Lotus corniculatus widespread

Medicago sativanaturalized. 2011 WolongMelilotus albaWhite Melilot. Wolong

Melilotus officianalis Wolong

[Piptanthus nepalensis Tagong Grasslands and other high areas, scattered. Yellow

flowered shrub with large trifoliate leaves]

Thermopsis barbata black pea. Luhuo and Ganze grasslands. 2011 plateau grasslands –

mostly over this year

Thermopsis smithiana in seed between Litang and Yajling. Yellow flowers. 2011 Gela La

Pass

Tibetia himalaica 2011. Small purple-blue flowers, leaves white-hairy underneath.

Plateau and also Zhedou Shan

Tibetia tongolensis widespread little legume with purple flowers on long stems.

Cream flowered form also seen.

Tibetia yunnanensis 2011. Small, white to cream flowers. Frequent on the plateau

Trifolium repens Wolong

Vicia nummularia roadsides, a typical vetch

Vicia unijuga Lathyrus laxiflora look-a-like. 2011 Zhedou Shan and Lou Gai Hai.

Celastraceae

[Euonymus frigidus Wolong]

Aceraceae

Acer cappadocicum 2011 Kangding area [Acer caudatum Kangding area]

Acer davidii undivided leaves. Wolong area – same in 2011

Aquifoliaceae

Ilex pernyi triangular-leaved holly. Wolong – same in 2011

Ericaceae

It should be noted that many of the rhododendron recorded were from the earlier season 2007 recce, as such there will be a limited number in flower during the tour

[Cassiope pectinata shrublet with small white bell flowers. Balang Shan and Luo

Gou Haii]

Lyonia villosa Zhedou Shan – same in 2011

[Rhododendron augustinii Wolong]

[Rhododendron balangense common on Balang Shan]

[Rhododendron bureavii probably this species growing along river banks below Balang

Shan]

[Rhododendron chryseum pale yellow dwarf species, widespread e.g. Kangding]

[Rhododendron decorum very common in mid altitude woodlands, pines, etc – pink and

white forms]

Rhododendron nivale boreale very small shrub with pale white-pink flowers. Zhedou Shan. 2011

on the Balang Shan

Rhododendron orbiculare Luo Gou Haii. Beautiful red buds open to white flowers common and widespread high altitude species in variety of

colours from white to pink – still a few in flower in 2011 on the

Balang Shan

Rhododendron primulaeflorum small flowered species in white or pink, scattered. 2011 on the

Balang Shan and Gela La Pass

[Rhododendron racemosum common and widespread]

[Rhododendron rubiginosum widespread bright to pale pink common on drier hillsides]

[Rhododendron rufescens small shrub with pale flowers. Zhedou Shan]

[Rhododendron rupicola more delicate dwarf shrub on Baima]

Rhododendron russatum a small lilac species, upland moors. 2011 Balang Shan

Rhododendron trichostomum small shrub with pale flowers. Zhedou Shan. 2011 frequent on the

high plateau

[Vaccinium fragile widespread]

Pyrolaceae

[Pyrola sororia Wolong]

Diapensiaceae

[Diapensia purpurea Previously found on passes south of Tagong grasslands, so it

may occur at some point]

Monotropaceae

lower slopes of the Balang Shan and between Litang and Yajling] [Monotropa hypopitys

Primulaceae

Androsace bisulca var biscula. Dense cushions with umbels of bright yellow flowers.

2011 some fabulous cushions on Tuor Mountain and the sand flats

there-on

[Androsace delavayi very dense cushions with white pink-tinged flowers tight to the

leaves. 4800m on the Dzo Dala]

[Androsace erecta common upright annual species with many wiry stems and

small whitish pink flowers]

Androsace henryi henryi very common at Wolong. White drumsticks. 2011 same [Androsace henryi simulans like *henryi* but bracts obovate and only to 5mm. Dege Gorge]

Androsace limprichtii laxly caepitose, leaves trimorphic, scapes to 20cm, umbels ten

flowered or more the flowers white or pink, quite large. Luhou and common in Zhedou Shan area. 2011 we saw it on the Jainxhi Pass

Androsace mairei ?maybe this species. Small pink flowered umbels, dimorphic

leaves. Ganze area and Cho La Pass. 2011 on the Zhedou Shan

Androsace minor laxly caespitose species forming patches with red-eyed pink

flowers on the Zhedou Shan

laxly caespitose species with good patches at Luo Gou Haii in [Androsace rigida

various shades of white to deep pink]

common and widespread. Tall drumsticks of pale pink to deep Androsace spinulifera

purplish-pink. 2011 the widespread and common pink species in

the plateau grasslands and mountains

[Androsace stenophylla tall (to 20cm) umbels, pink flowers with white eye. Dege Gorge]

[Androsace tapete compact cushions with small pink flowers. Dzo Dala]

Androsace yargonensis dense cushions with 5-6 flowered umbels of small white or pink

blooms. Scapes with long white hairs. 2011 Zhedou Shan

Androsace zambalensis dense cushion forming species with white flowers with yellow

or red eyes. Zhedou Shan and Luo Gou Haii. 2011 possibly seen on

the Jainxi Pass and the Gela La Pass?

Omphalogramma vincaeflora fantastic deep purple species with large flowers. Many in alpine

turf on Balang Shan. 2011 same

umbels of slightly hanging purple 'frilly' flowers. Balang Shan. Primula amethystina

2011 Balang Shan and the Zhedou Shan

Primula bathangensis unusual species with yellow flowers in a raceme and greatly

inflated calyxes. On slopes above Danba. 2011 same

[Primula bellidifolia soft blue species like deflexa on granitic rocks to west of Cho La

pass. In 2010 probably this species on the Zhedou Shan]

Primula blinii small species growing on rocky outcrops with bluish-rose

flowers. Passes above Yajling. 2011 same

Primula cernua pretty blue lilac narrow-flowered species at Luo Gou Haii Primula chionantha purple-violet flowers. Balang Shan. 2011 Gela La Pass

Primula cockburniana stunning orange species, fine stemmed, common in Danba and

Luhou areas amd also below Luo Gou Haii. 2011 same

Primula deflexa blue-purple long tubed capitate species. Rilong and Danba area.

2011 Zhedou Shan

Primula dryadifolia lovely species very common on Balang Shan and Zhedou Pass,

wide pink bells, leaves leathery, almost orbicular and crenulate.

2011 Balang Shan

Primula euprepes wonderful near-black species on Zhedou Pass – three plants seen

in flower in 2010. 2011 about the same!

Primula fasciculata tiny efarinose species of peaty areas, bright pink to rose flowers.

2011 Tsosum Mountain

Primula gemmiferaBalang Shan, pink with white eye. 2011 Balang ShanPrimula gracilentahead of many lilac-pink flowers. 2011 Kangding area

[Primula heucerifolia possibly this species at Wolong]

Primula moupinensis

[Primula muscaroides

Primula nutans

[*Primula hoii* tall deep pink-lilac species in grasslands west of Luhuo] *Primula involucrata* common in the Ganze area and between Luhou and there.

Marshy ground. Flowers various shades of pink to nearly white or

purple. 2011 Tsosum Mountain

[Primula limbata flowers blue-purple, calyx strongly farinose inside. On cliffs and

slopes on Dzo Dala]

[Primula longipetala a recently named species in abundance on Balang Shan over

4000m]

Primula melanops very beautiful plant with blue pink or mlilac tinged flowers with a

dark centre in a many flowered inflorescence. 2011 Balang Shan primrose-like pale lilac flowers and serrated leaves. Wolong unusual narrow-tubed purple species below Luo Gou Haii] widespread pink flowered species of the plateau grasslands. 2011

everywhere around Litang!

Primula obconica umbels of pink to lavender-rose flowers. 2011 Between Danba and

Rilong

Primula orbicularis tall umbels, yellow flowers, long narrow leaves. Damp meadows

on the way up the Balang Shan where just about over. 2011 much

more widespread but just a few at each site

Primula oreodoxa2011. In leaf in the ravines around Wolong. A very local species[Primula palmatain woods west of the Balang Shan. Leaves like a geranium!]Primula polyneuraBalang Shan and around Danba and Luhuo. Also has leaves like

a geranium, but much longer than broad. Flowers pale rose. 2011

same

Primula rhodocroa this or something very similar in the alpine tundra north of

Litang, a tiny pink species. In 2010 we saw it in marshy ground

between Danba and Luhou. 2011 - near Danba again

Primula scopulorum rose-purple flowers. 2011 Yajlang area

Primula secundiflora common and widespread with umbels of rose-purple flowers

beautifully set off by white farinose calyxes. In wet flushes usually

with sikkimensis . 2011 widespread

Primula sikkimensis very common pale yellow species. 2011 widespread

Primula stenocalyx neat umbels of bluish-pink-lavender flowers on Balang Shan turf

amongst rocks. 2011 Tsosum Mountain

[Primula szechuanica possibly this tall species with reflexed pale yellow flowers in

whorls, Luo Gou Haii]

Primula tangutica amazing spidery reddish-brown flowers, Pass north of Ganze,

also Dzo Dala, Cho La Pass and Litang area. 2011 Gela La Pass and

between Daocheng and Litang

[Primula watsonii deep indigo-purple flowers. Luo Gou Haii]

[Primula zambalensis Something close to this in similar habitat on which it occurs in

Yunnan on the pass south of Ganze]

Cornaceae

Cornus capitata between 1000 and 2000m, superb flowering shrub/tree with wide

creamy bracts. 2011 same

Tamaricaceae

Myricaria laxiflora various of the larger rivers

Loganiaceae

Buddleja crispa 'cripsed' ovate leaves. 2011 between Kangding and Ya'an

Buddleja davidii mid-altitudes in east – same in 2011

Plumbaginaceae

Ceratostigma minus pretty bright blue flowers. 2011 on banks along the road between

Kangding and Luding

[Ceratostigma willmottianum more shrubby than the previous species. Yilong River]

Oleaceae

Jasminum polyanthum roadsides between Ganze and Litang. 2011 near Danba

[Osmanthus delavayi widespread in shrubberies]

Syringa yunnanensis Wolong. White flowers. 2011 Kangding area

Asclepiacaeae

Ceropegia mairei weird, hairy flowers on twining stems near Danba at Eremurus

Site. 2011 probably this species between Rilong and Danba

Cynanchum forrestii upright yellow flowered species. Wolong

Cynanchum inamoenum another yellow species. 2011 between Kangding and Ya'an [Vincetoxicum hirundinaria scattered, whorls of small green flowers but seen only in seed.

Yilong River]

Caprifoliaceae

Leycesteria formosa scattered in shrubberies and roadsides. 2011 same

Lonicera litangensis twin-flowered species. 2011 Wolong

Lonicera rupicola lilac-flowered rock dweller. 2011 Balang Shan
Lonicera trichosantha axillary aired erect cream flowers. 2011 widespread

[Lonicera tibetica rather sparse pink flowers. Scattered]
Sambucus adnata common herbaceous elder. 2011 Wolong.

Sambucus ebulus common herbaceous elder

Viburnum spp. species seen but not identified – same in 2011!

Adoxaceae

[Adoxa moschatellina Dzo Dala]

Dipsacaceae

Morina alba scattered throughout at mid altitudes. White flowers. 2011

widespread

Greentours Natural History Holidays www.greentours.co.uk 35

Morina nepalensis Balang Shan. Pink flowers. 2011 widespread

[Pterocephalus sp Rilong area]

Cannabinaceae

Cannabis sativa occasional roadside weed - same in 2011

Solanaceae

Anisodus carniolicoides yellow-green flowers. 2011 between Litang and Daocheng Anisodus tanguticus

scattered, often as a roadside weed. Strange large greenish or

purplish flowers. 2011 frequent on the plateau

Rilong area. 2011 widely scattered Datura stramonium

[Hyoscyamus niger villages between Ganze and Maniganga]

Asteraceae

Anaphalis nepalensis widespread - same 2011

[Aster diplostephioides ?maybe this species along the Yilong River]

[Aster farreri distinctly clump forming species seen near Litang and probably

this on Xinjun Pass.]

[Aster himalaicus fine wide flowered species with large mauve rayed flowers on

short stems, Haizi, Zhedou Shan. Another wonderful wide, fine-

rayed species en route to Maniganga.]

[Aster oreophilus dense-rayed branched species en route to Luhou]

[Aster soulei lovely variable mauve daisy, widespread]

[Aster yunnanense Tall branched species en route to Maniganga, scattered

elsewhere]

Cremanthodium decaisnei wonderful displays near top of Dzo Dala, pendant heads with

spidery yellow petals. 2011 Balang Shan

[Cremanthodium angustifolium Luhuo area, marshy places/pools on grasslands] Cremanthodium campanulatum Dzo Dala. 2011 widespread on the plateau Cremanthodium reniforme 2011 on sand flats on Tuor Mountain

[Cremanthodium rhodocephalum not reniforme! Yellow daisy flowers and reddish-bronze

crenulated leaves, Cho La Pass]

[Cremanthodium smithianum another species with reniforme leaves. Near Litang

Dolomiaea forrestii extraordinary squat thistle with almost black flowers. Noted

near Danba and Litang. 2011 on the plateau grasslands

[Doronicum altaicum Dege area]

scattered in meadows, long spidery rays. 2011 on the plateau Leontopodium haplophylloides

grasslands

dwarf species on Chola Shan, thick triangular rays. 2011 Gela La Leontopodium jacotianum

[Leontopodium soulei Ganze pass, etc, small with shirt broad rays]

Leontopodium sp 2011. A dwarf shrubby species (!) seen on the Balang Shan Ligularia cymbulifera. a fine large glaucous-leaved species, wide spread corymbose

infl. Between Litang & Yajling. 2011 at mid-altitudes on the Balang

Ligularia duciformis large species with reniforme or cordate leaves. Compoun

corymbs with numerous capitula with yellow flowers. Zhedou

Shan area. 2011 Luo Gou Hai

damp roadsides, spicate inflorescence. Widespread – also 2011 Ligularia lankongensis

[Ligularia nelumbifolium common in marshy areas, very large orbicular leaves. Some just

in flower. Scattered throughouy]

Ligularia przewalskii handsome cut-leaved species with tall spikes of yellow flowers,

Rilong. 2011 Balang Shan and Zhedou Shan areas

Ligularia purdomii without radiant ligules. Large undulate circular leaves. Frequent in

streams etc on the plateau grasslands

[Microglossa albescens Frequent shrub aster e.g. Rilong, Zhedou Shan (Danba)]
[Pyrethrum tatsiensense common orange daisy on grasslands around Ganze]

Saussurea obovallata tall herbaceous species with flowers wrapped in ensheathing

bracts on Chola Shan. 2011 reasonably frequent on plateau

grasslands and high passes.

Saussurea graminea undistinguished purplish flowered species. Dege area and also

Zhedou Shan. 2011 Tuor Mountain

[Saussurea hieracioides Litang passes and Luo Gou Haii]

Saussurea medusa fabulous high-altitude 'dalek' with entire leaflets covered in

hairs. On gravelly screes at 4800m on the Dzo Dala and lower at the foot of a scree slope on the Zhedou Shan. 2011 found on the pass between Daocheng and Xiengcheng, also on the Zhedou Shan fabulous high-altitude 'dalek' covered in dense lanate hairs so

that almost the whole plant is obscured. Leaflets pinnately lobed.

Forms an almost cactus-like columnar plant about 15cm tall. Steep

screes at 5000m above the Cho La Pass]

[Saussurea quercifolia another superb high alpine Saussurea this one with more open

leaf rosettes (so not so columnar as *leucoma* and *medusa*) and these covered in tomentose indumentum on upper-side. On gravelly

screes at 4800m on the Dzo Dala]

Saussurea cf wellbyi 2011. Fantastic purple-flowered squat species like a many-armed

starfish! Found at several sites on high passes in the Litang area

Soroseris gillii wonderful species with broad domes of yellow flowers and

rosettes of undulate leaves at 4800m on Dzo Dala where some in flower. 2011 in bud on the Balang Shan and in flower on the pass

between Daocheng and Xiengcheng

Soroseris hirsuta in bud on the Zhedou Shan. 2011 in flower on the Zhedou Shan

Soroseris hookeriana ssp erysimoides Yellow flowered species, with extending stem. Most passes – same

in 2011

Soroseris rosularis screes on Cho La Pass. 2011 noted once or twice on high screes near

Litang

Convolvulaceae

[Saussurea leucoma

Cuscuta europaea Dege area. 2011 – Cuscutas seen not sure which species

Polemoniaceae

[Polemonium chinense in bud between Danba and Luhou]

Gentianaceae

A confusing number of small flowered annual species were seen and not unidentified

Comastoma cyananthiflorum blue. 2011. Zhedou Shan

Comastoma pulmonarium pale blue upright gentian east of Luhou. 2011 probably this species

between Danba and Yajlang

[Gentiana asterocalyx tiny annual species with dark blue flowers]

[Gentiana dolichocalyx flowers pale blue with yellowish tube and outside with blue

streaks. Luo Gou Haii]

[Gentiana nanobella probably this species between Dawu and Danba, variable blues] Gentiana primuliflora

corolla violet, open. Common along roadsides around Wolong.

Gentiana pseudosquarrosa tiny dark blue species noted in Danba area

[Gentiana pubigerum variable little gentian growing on roadsides and alpine turf on

Balang Shan]

large tubular cream species with blue stripes on passes south of [Gentiana purdomii

Litang]

[Gentiana rubicunda deep magenta dwarf species on Cho La Pass and south of Litang] [Gentiana tetraphylla pale flowers with dark blue stripes and yellow base. Zhedou

[Gentianopsis barbata cream and blue striped species just outside Maniganga] [Gentianopsis grandis deep blue on tall wiry stems. Scattered throughout]

blue flowers, all calyx lobes roughly equal. Between Ganze and [Gentianopsis paludosa

Maniganga]

peculiar claw-like blue flowers, Ganze area. 2011 Tsosum Halenia elliptica

Mountain.

Boraginaceae

Asperugo procumbens Litang!

Cynoglossum amabile common along roadsides

sensational alpine with fine cushions on the Cho La Pass at over Chionocharis hookeri

4700m – particularly spectacular mounds on the west side of the pass. In 2011 only Tesbho saw this plant growing a little higher

than the rest of us reached on the Gela La

Gela La Pass Eritrichium sp

[Onosma maaikangense blue-flowered borage between Luhou and Dawu]

Trigonotis laxa 2011 Gela La Pass

Trigonotis sp the common brilliant blue alkanet that was locally abundant

were this genus, but there are many species!

Scrophulariaceae

At least 60 species of *Pedicularis* were seen (there are at least 250spp in Sichuan) and they proved a

challenge!

Euphrasia pectinata evebright. 2011 Jainzhi Pass

[Euphrasia regelii very small eyebright. Wet ground between Danba and Luhuo] dense spikes of white veronica-like flowers. Tundra between Lagotis integra

Litang and Yajling. 2011 frequent on the high plateau

Lagotis yunnanensis 2011 between Daocheng and Litang

Lancea tibetica widespread, dwarf, purple flowered. 2011 widespread Mimulus szechuanensis typical little monkey flower. 2011 above Wolong

[Pedicularis alopecurus elegant pale yellow flowers with purple-tipped galea. Luhou

[Pedicularis anas var tibetica stunning species with purple flowers and a pale creamy lower

lip and dark purple-red galea. Between Ganze & Maniganga.

Possibly also Zhedou Shan?]

[Pedicularis anas var anas deep pink with black 'cat's whiskers' markings, tall, flowers in

whorls. Grasslands west of Ganzel

Pedicularis artselaerisingle long-tubed pink flowers. Between Litang and Daocheng[Pedicularis batangensispretty whitish-pink with deep pink beak, long-tubed, open

slopes south of Luhou]

[Pedicularis bella ?something similar to this on the way up the Balang Shan – not

this species though]

Pedicularis brachycrania purple flowers. 2011. Wet areas on the high pass between

Daocheng and Ziangcheng

[Pedicularis cernua very small. Red flowers with galea erect basally, with a central

marginal protuberance on each side, apex truncate, 1-toothed on

each side. Luo Gou Haii]

[Pedicularis chenocephala dwarf alpine, leaves whorled or opp, flowers rose with straight

tube, beak longer, slightly curved and goosehead shaped and

golden or purplish. Ganze area and Zhedou Shan]

Pedicularis cheilanthifolia striking pink lousewort on high gravels and screes. 2011 between

Litang and Daocheng, also Tsosum Mountain

[Pedicularis confertiflora pink flowers with purple galea. Calyx lobes leaf like. Very short

alpine species. Dzo Dala]

Pedicularis cyathophylla spectacular tall species with long tubed pink flower stwisted

through 90°. Almost black galea also bent 90° and connate petioles. Between Litang and Yajling. 2011 frequent on the plateau and in

Kangding area

[Pedicularis cyathophylloides leaves in whorls of 3-4, bases connate. Flowers pink, large, galea

apically expanded. Bteween Ganze and Litang]

Pedicularis davidii lovely bicolored pink and white species with twisted beak e.g.

Rilong, Balang Shan oblong leaves very coarsely crenulated. 2011

frequent in these areas

Pedicularis davidii var pentadon deep pink with twisted beak, common Danba & Luhou areas. 2011

Balang Shan and Rilong

Pedicularis decorissima one of the most beautiful species seen, long tubed with purple-

pink galea and beak - Zhedou Shan area. 2011 seen on the Jainxi

Pass and the Zhedou Shan

Pedicularis densispica leaves opposite or whorls of 3-4. Medium sized species with

large pink flowers the beak a striking golden colour. Dzo Dala.

2011 frequent on the plateau

[Pedicularis dichotoma tall elegant species with inflated calyces and pink flowers with

hooked purplish galea, Cho La Pass]

Pedicularis dielsiana branched species, leaves in whorls of 3. Flowers yellow. Luhou

Area. 2011 2011 noted in the Kangding area

Pedicularis diffusa elegant spikes of rose-colloured flowers. Leaves in whorls of 4.

2011 Between Litang and Daocheng

Pedicularis dunniana impressive very tall yellow flowered species near Wolong and

Luo Gou Haii. 2011 frequent around Wolong

[Pedicularis excelsa impressively tall species – 1m or more! White flowers with

purple beak. Ganze area]

Pedicularis flaccida glabrous, many weak branches, corolla strongly bent from base.

Zhedou Shan. 2011 probably this species in the moors between

Litang and Daocheng, seen in both directions

[Pedicularis hirtella ?maybe this species. pale pink lip, dark purple falcate galea.

Zhedou Shan]

[Pedicularis ingens very tall with pale yellow flowers and distinctive auriculate

double-dentate leaves. Luhou area]

Pedicularis integrifolia dwarf alpine species with large pink flowers with S-shaped

slender beak. Luhou area. 2011 frequent on the plateau

Pedicularis kansuensis branched basally, pink flowers, 4 lines of hairs on stem, leaves in

whorls of 4. Zhedou Shan. 2011 widespread on the plateau. The plants we saw on the Balang Shan that resembled this species may

have been Pedicularis xiangchengensis or form albiflora

Pedicularis kantingensis like lachnoglossa but villous galea twisted and corolla lobes

rounded. Zhedou Shan. 2011 lower slopes of the Balang Shan

[Pedicularis kialensis red lip, purple twisted bearded galea, alternate leaves. Bteween

Ganze and Litang]

Pedicularis lachnoglossa elegant slender species with dark pink flowers, the galea

strongly twisted and densely villous. Luhou area. 2011 widespread

on the plateau

Pedicularis lasiophrys stems 2 lines of hairs, flowers yellow, with yellow hairs. 2011

Balang Shan at mid-levels

[Pedicularis likiangensis short several temmed species with red-pink flowers, tube bent at

right-angles basally. Dzo Dala]

Pedicularis lineata pale pink species e.g. Balang Shan. 2011 Balang Shan

Pedicularis longiflora var longiflora deep yellow without maroon markings, long tubed flowers,

marshes or grasslands. 2011 Between Danba and Yajlong

Pedicularis longiflora var tubiformis deep yellow with maroon markings, long tubed flowers,

marshes or grasslands. Scattered in the west. 2011 frequent on the

lateau and plateau edges

Pedicularis longistipitata 4 lines of hairs on blackish stem. Yellow flowers. 2011 high pass

between Daocheng and Xiangcheng

[Pedicularis lyrata dwarf single stemmed, opposite leaved species with yellow

flowers, galea falcate at middle and with 3-5 teeth each side near

apex. North of Ganze]

Pedicularis macrosiphon small pink species seen at Wolong. 2011 Wolong and lower slopes

of the Balang Shan

[Pedicularis metzszetchuanica red flower, purple galea. Ganze area]

Pedicularis oederi yellow species with orangey-red tip to galea, most high passes.

2011 widespread, especially on the plateau

[Pedicularis polyodonta pretty small pale yellow flowers, ovate pinnatisect leaves, galea

falcate apically with 3-6 teeth on each side. Ganze area and Luo

Gou Haii]

Pedicularis princeps pale yellow flowers – very tall plant around 1m. 2011 Wolong

Pedicularis przewalskii deep pink long-tubed dwarf alpine species Litang area and Dzo

Dala. 2011 Frequent on the plateau

Pedicularis rex lipskyana tall and robust. Leave bases connate and cupular. Flowers in

'cups' purple red. Wolong area & near Dege. 2011 noted Wolong,

lower slopes of the Balang Shan, also near Kangding

Pedicularis rex rex as above but flowers yellow. 2011 between Luding and Ya'an

Pedicularis rhinanthoides ssp labellata a widespread species (ssp tibetica probably also present) in

moist meadows, slopes, etc, lower lip spreading forward to encompass beak which is S-shaped. Pink or pink and white. 2011

frequenly seen on the plateau especially in very wet areas

Pedicularis rhodotricha medium purple-red flowered species, half moon galea is densely

covered in long pale red hairs! Luo Gou Haii. Noted on the pass

between Daocheng and Xiangcheng and also Jainxi Pass

Pedicularis roylei beautiful alpine species with strongly-veined pink flowers, lip

lobes overlapping. Dzo Dala. 2011 frequent on the passes

Pedicularis rudis something like this normally whit-ish species but our specimens

were pinkish and also much shorter. 2011 Litang area

Pedicularis rupicola ssp rupicola Chola Shan, whitish or pale pink species with dark mark on galea,

dark lines on the lip. 2011 seen on the Jainxi Pass

[Pedicularis semitorta roadsides below Xiling Shan]

Pedicularis sima medium tall rose flowers, leaves whorls of 3. 2011 near Kangding

Pedicularis siphonantha Zhedou Pass, pink and white with twisted beak and inverted

black 'v' markings. 2011 widespread on the plateau

Pedicularis steiningeri tall, 70cm+, yellow flowered species with linear dentate leaves,

the teeth with more than 60 pairs. Luhou, Maniganga, etc. 2011 frequent in subalpine forst edges and alpine rhodo scrub

[Pedicularis superba tall and robust. Leave bases connate. Large flowers pink-red,

galea paler dark tipped. Danba to Luhou]

Pedicularis stenocorys pink flowers with purple spots, slender galea, calyx white-villous.

2011 Luo Gou Haii

[Pedicularis szetchuanica ssp latifolia en route to Chola Shan, abundant bright pink species among

shrubberies]

Pedicularis szetchuanica ssp szetchuanica differs from subspecies latifolia by being pubescent. 2011 Balang

Shan

[Pedicularis tatsienensis blackish-purple goosehead galea, lip shining red-purple.

Zhedou Shan]

Pedicularis thamnophilla inflated petioles forming a cup, flowers yellow, leaves in whorls

of 3 or 4. Common either side of Yajling. 2011 Zhedou Shan

Pedicularis tongolensis ingens group, tall yellow, glabrous except calyx, leaves clasping,

densely incised. Between Ganze and Litang. 2011 between Yajling

and Litang

[Pedicularis torta stunning spicate yellow or white flowered species with purple

galea and S-shaped beak. Rilong and Luo Gou Haii]

Pedicularis trichocymba yellow, fairly tall, bracts leafy exceeding flowers. 2011 between

Litang and Daocheng

Pedicularis tricolor striking yellow and white species with cymes of large flowers

with twisted beak, grasslands and meadows e.g. near Luhuo, Ganze. 2011 between Danba and Yajlang, Tsosum Mountain and

between Yajling and Kangding

Pedicularis variegata remarkable species with large creamy-white flowers and

reddish-purple beaks larger than the plant itself. Zhedou Shan.

2011 Zhedou Shan

Pedicularis urceolata clump-forming long-tubed species with bright pink flowers with

deeper rose galea. White spot at galea base. 2011 on pass between

Daocheng and Xiangcheng and also on Zhedou Shan

[Pedicularis verbeniifolia unusual violet flowered species. North of Luhou]

Siphonostegia chinensis unusual flowers – lower lip yellow, upper red-purple. Wolong,

Danba and below Kangding

[Triosteum himalayanum odd yellowish and red flowers, broad triangular leaves, woods

Rilong]

Verbascum thapsus common along roadsides in drier areas

Veronica ciliata Between Yajlang and Litang

Veronica lanuinosa scattered throughout

Gesneriaceae

[Corallodiscus flabellatus rhomboid pleated leaves. Between Danba and Luhou. Also

another form or species on rocks in this area]

Corallodiscus lanuginosus. blue flowers and wrinkled leaves. Extensive colonies flowering

west of Danba, Zhedou Shan. 2011 noted at a number of localities

Rubiaceae

Leptodermus forrestii small shrub with funneliform blue flowers. 2011 between Litang

and Daocheng

Bignoniaceae

Incarvillea arguta common along roadsides in drier areas, bushy with small

pinnate leaves. 2011 widespread

[Incarvillea compacta pass north of Ganze]

Incarvillea delavayi common garden species seen en route to Cho La Pass from Dege,

tall spicate inflorescences. 2011 Pass between Daocheng and Xiangcheng. Plants on the Jainxi Pass come somewhere between

this and Incarvillea younghusbandii?

Incarvillea mariei common and variable. Some stunning deep pink forms. Form

multifoliata between Ganze and Litang. 2011 widespread on the

plateau

Orobanchaceae

[Boschniakia himalaica dark-coloured parasitic species. In seed at various localities]

[Orobanche coerulescens between Ganze and Maniganga]

Lentibulariaceae

Pinguicula alpina Luo Gou Haii. 2011 in leaf at Wolong

Verbenaceae

[Clerodendron bungei village roadsides in Sichuan, globular pink flowerheads]

Balsamiaceae

Impatiens delavayi yellow balsam near Wolong. 2011 Wolong. Other Impatiens species

also seen.

Lamiaceae

Ajuga lupulina large bracts of reddish or cream. Widespread in grasslands, 2011

too

Ajuga ovalifolia deep purple flowers and crinkled leaves. Widespread in

Grasslands, 2011 too

[Dracocephalum calophyllum Ganze and Luhou areas, deep blue, fine-cut leaves]

Dracocephalum forrestii Ganze and Luhou areas. Leaves with even finer segments. 2011

scattered on the plateau

Eriophyton wallichii a lanate short herb with purple-red flowers almost hidden in the

leaves. 2011 pass between Daocheng and Xiangcheng

Lamiophlomis rotata Litang and Cho La Pass. Stemless crinkled broad leaves with

purple flowers. 2011 widespread on the plateau

[Lamium amplexicaule noted in fields near Danba]

Nepeta stewartiana variable blue to mauve-pink sp east of Luhou and elsewhere in

Grasslands. 2011 north of Litang, also Tsosum Mountain

Phlomis tatsienense wonderful deep purple species on lower slopes of Balang Shan.

2011 – though not sure this wasn't Phlomis umbrosa?

Marmoritis complanatum superb felted deadnettle of high altitude screes with little blue

flowers. Leaves noted on Dzo Dala. 2011 leaves noted at a variety of high passes, but also in flower on the pass between Daocheng

and Xiangcheng

Prunella vulgaris scattered along roadsides. 2011 widespread

Salvia evansiana impressive blue species, widespread in mountains, grasslands.

2011 same

[Salvia subpalmatinervis widespread purplish-red species, quite hairy flowers]

[Salvia przewalkskii Lugu Lake and elsewhere a fine species with deepest purple lip]
Scutellaria orthocalyx frequent along roadsides pinkish-blue spikes. 2011 frequent

Campanulaceae

Campanula immodesta a delicate wiry-stemmed species on most passes. 2011 same

Adenophora capillaris pretty pale blue bells on wiry stems in Ganze area, etc

[Adenophora coelestis tall with dark blue bells, Xinjun Shan]

Codonopsis convolvulacea Luhou and Ganze area – clambering species with open blue

flowers. 2011 near Yajlang. Another Codonopsis species seen at the

same locality

Cyananthus flavus small yellow alpine looking like a gentian – Balang Shan, Cho La

Pass and common in the Zhedou Shan area. 2011 same

Cyananthus sp blue species south of Litang. Also at least one other blue species

and a white species too. 2011 also noted a blue species on the

Zhedou Shan

Zingiberaceae

[Roscoea tibetica ?probably this species. On cliffs between Danba and Luhou]

Commelinaceae

[Commelina communis lush valleys below Kangding]

Liliaceae

[Alectris alpestris white flowers, scattered e.g. Zhedou, Lu Gou Hai]

Alectris glabra slender brownish stems. Luo Gou Hai. 2011 various localities but

commonest in the Kangding area

Alectris glandulifera 2011 above Wolong

Alectris nana 2011 between Daocheng and Xiangcheng

Alectris pauciflora Wolong and lower Balang Shan. 2011 Luo Gou Hai

Alectris stenoloba 2011 Luo Gou Hai

[Allium atrosanguineum var tibeticum brass-yellow dwarf allium. Dzo Dala and Cho La Passes]

[Allium beesianum blue-flowered. Between Ganze and Litang]
[Allium cyathophorum pretty purple umbels. Ganze to Maniganga]

[Allium macranthum umbellate species with pendant flowers, near Ganze]

Allium prattii widespread pink drumstick, broad leaves

[Allium przewalskii Ganze to Maniganga]

[Barnardia japonica tall slender pink spikes open slopes near Luhou]

Cardiocrinum giganteum ssp yunnanense magnificent fragrant trumpets. Wolong! 2011 - same

Eremurus chinensis tall, white spikes en route to Danba. 2011 between Rilong and

Danba

Fritillaria cirrhosa (siniaca) scattered, Luhou and Ganze areas. The frits on the lower part of

the Balang Shan may have been przelwalskii? 2011 scattered on the

plateau

Fritillaria przelwalskii 2011 Gela La Pass

Fritillaria sichuanica 2011 between Daocheng and Litang

Fritillaria unibracteata scattered, Luhou and Ganze areas, also near Litang. 2011 widely

scattered

Hemerocallis fulva near Danba, but maybe planted. 2011 en route to Wolong

Lilium davidii tall orange turk's-cap type near Danba and below Kangding. 2011

near Danba

Lilium duchartrei lovely white turk's-cap type, between Danba and Luhou. 2011 near

Danba and also near Yailang

Lilium leucanthemum impressive tall lily one to two metres tall. It seems to be var

centifolium as the tepals were tinged purplish or brownish along the mid-vein on the outside, however that form is only known from

one site in South Gansu, though at a similar altitude.

Lilium lophophorum noted almost throughout on and near high passes. Mostly the

yellow form, but south of Litang was a peach coloured form. 2011 widespread, especially on the eastern parts of the plateau or passes bright valley like soon only from a distance in the luch valley.

Lilium primulinum bright yellow lily seen only from a distance in the lush valleys

below Kangding may well have been this species

Lilium rosthornii orange turks-caps with purple spots. Fimbrillate nectaries. 2011

probably this species in the valleys below Kangding

Lilium sargentiae fabulous trumpet lily in lush valleys east of Kangding. 2011 same lilium sulphureum impressive pale yellow trumpet lily, fragrant, between Kangding

and Ya'an at c2000m. 2011 same

Lilium taliense white turk's-cap with purple spots, brownish anthers. 2011

possibly this species between Kanding and Ya'an

Lloydia delavayi yellow with reddish or purplish-green inside. Luo Gou Haii. 2011

near Danba, Yajlang too

Lloydia serotina white – the Snowdon Lily. On east slopes of Balang Shan. The

white Lloydia growing in rocks above screes at Luo Gou Haii may

have been this species? 2011 Balang Shan

Lloydia tibetica yellow with reddish or purplish-green inside. Inner tepals

crested-lamellar near base adaxially. Scattered throughout the

tour. 2011 Balang Shan

Polygonatum curvistylum verticillate hanging pale purple flowers. Balang Shan. 2011

widespread

Polygonatum hookeritiny pink flowered solomon's seal. Balang Shan. 2011 samePolygonatum verticillastrummauve flowers, linear leaves, Luo Gou Haii. 2011 Balang Shan

Maianthemum atropurpureum 2011 above Wolong

Maianthemum henryi tubular white-green flowers. Luo Gou Haii and probably also in

Balang Shan area. 2011 Kangding area

[Maianthemum oleraceum aka Smilacina oleracea. flowers white to red, tepals almost free.

Balang Shan]

[Maianthemum tatsienense aka Smilacina paniculata! Greenish flowered. Common in Wolong

and Balang Shan area]

Notholirion bulbiferum superb pale blue-purple flowered lily below Luo Gou Haii. 2011

same

Ophiopogon angustifoliatus stoloniferous. 2011 near Danba

Ophiopogon bodinieri spikes of white flowers. Stoloniferous. Common in the Wolong

area. 2011 Luding to Ya'an

Ophiopogon intermedius spikes of white flowers. Not stoloniferous. Common in the

Wolong area. 2011 near Danba. Other species of Ophiopogon noted

but not identified – a tricky group!

Paris polyphyllum Wolong area. 2011 same, plus near Yajlang

Streptopus parviflorus 1-2 little white flowers hanging under leaves axils. Balang Shan

Streptopus obtusatus Flowers mainly terminal, yellowish. 2011 Wolong

Tofieldia tibtrica 2011Wolong

Veratrum macrophyllum fine species with white flowers, large ribbed leaves, Balang Shan.

2011 same

Veratrum nigrumblack-flowered. Balang Shan. 2011 sameVeratrum stenophyllumgreen-flowered. Zhedou Shan. 2011 same

Iridaceae

Iris bulleyana paler than chrysographes with yellow-tinged patch at centre

rather than base. Balang Shan. 2011 same

Iris chrysographes common on Zhedou Shan, superb deep purple flowers with gold

Lines. 2011 same

[Iris confusa odd flowers, widespread in mid-altitudes. Ascending rhizomes]

Iris cuniculiformis dwarf flat-topped lilac to pink/violet flowers 6-7cm across.

Balang Shan. 2011 abundant between Litang and Yajlung

Iris farreri another flat-topped iris, densely tufted, white and violet

flowers, 7.5 – 9cm across. North of Luhou

Iris goniocarpa dwarf, flat-topped pale purple/blue iris. Around Luhou and also

good populations in Litang and Yajling areas. 2011 scattered

[Iris polysticta fine mauve species west of Ganze pass]

[Iris ruthenica ?possibly this species between Litang and Yajling]

Araceae

Arisaema ciliatum odd ones seen in flowers, scattered e.g. between Ganze and

Litang. 2011 Zhedou Shan

Arisaema erubescens was 'consanguineum'. widespread and variable species with brown

or green and white-striped spathes, mostly over by July but some in flower at various localities. 2011 same. In general I found these

very difficult to idenitify!

Arisaema elephas Wolong and Luo Gou Haii. 2011 similar plus one or two more

localities

Orchidaceae

Amitostigma monanthum delicate orchid with several white flowers with purple spots on

the lip. Wolong. 2011 Wolong, also between Daocheng and Litang. Whether it is this species or *basifoliatum* or *farreri* I am not certain tiny green orchid just a few cm high in grasslands on the Balang.

Androcorys oxysepalus tiny green orchid just a few cm high in grasslands on the Balang

Shan. Maybe other *Androcorys* species seen? 2011 same

[Bletilla formosana pink and yellow species along Danba to Kangding road]

[Bletilla ochracea white and yellow flowers, south of Baoxing. Not seen on the

2010 tour – all mention of this species was in fact *Oreorchis foliosa*] white or greenish flowers, lips with apparently four lobes, plant

half a metre tall. Found between Luding and Ya'an, plants near

Damba were *not* this species

Calanthe tricarinata Complicated chestnut and yellow lip with other petals and sepals

lime green. Common around Wolong. 2011 Wolong

Cephalanthera longifolia lower slopes of the Balang Shan. 2011 same, also noted in seed

around Danba

Coeloglossum viride one near Rilong. 2011 Balang Shan and Luo Gou Hai

Calanthe davidii

[Cypripedium flavum

Epipactis humilior

Cymbidium faberi terrestrial. Long acute leaves to 80cm, scape tall with sepals and

petals pale yellowish green; lip pale yellowish green with purplish

red patches. 2011 Between Luding and Ya'an

[Cypripedium calcicola smaller, squarer flowers, two pale windows at back of slipper

and no white rim. Marshy area near between Danba and Luhou] large yellow slipper with red spots inside. Single plant in bloom

on Balang Shan amongst abundant Cypripedium tibeticum and

Cypridepium franchetii!]

[Cypridepium franchetii ?very large deep pink slippers – need to check next time – are

ovaries densely villous? A few plants with Cypripedium tibeticum at

mid-levels on the Balang Shan]

Cypripedium guttatum small spherical white and pink slippers. Fabulous! One of the tour

highlights in 2011 when found on Tsosum Mountain

Cypripedium tibeticum large deep pink slippers. Good colony on Balang Shan, also

Danba area, Dege area and Luo Gou Haii. 2011 same – astounding

numbers in some localities

[Cypripedium yunnnanense lovely pink species between Ganze and Yajling. Only in seed on

2010 tour]

Dactylorhiza hatagirea typical marsh orchid. 2011 betwee Danba and Yajlang

Dendrobium monoliforme creamy or yellow-white flowers, tinged with various colours.

Growing on roadside rocks between Kangding and Ya'an! 2011

same

[Dendrobium nobile large white flowers, out of reach up a bank between Kangding

and Ya'an!]

Epipactis helleborine in mossy forest between Danba and Luhou. 2011 near Danba

hanging rather closed green flowers tinged purple. Mid-altitudes.

2011 near Danba

Epipactis mairei rather colourful helleborine seen below Wolong. 2011 same

Galearis spathulata very short straight stout spur. Single leaf. Very small plant. 2011

Balang Shan

Galearis wardii long (6-10mm) slender curved spur. Pink-purple spotted with deep

purple. Two leaves. 2011 frequent on the slopes of the Balang Shan

Gymnadenia conopsea grasslands, scattered throughout the tour. 2011 same

Gymnadenia crassinervis variable pink species, short or medium, spur always tiny. Quite

common in grasslands throughout. 2011 same

[Gymnadenia emeiensis robust white flowered species noted in subalpine grasslands

throughout the tour. In some booked this is shown as 'orchidis' - it

is not that species!]

Gymnadenia orchidis robust species with pink to red small fragrant flowers with short

curved spur. Luo Gou Haii. 2011 frequent almost throughout

[Habenaria fargesii fine butterfly orchid with lip strongly three parted, the lobes

coiled! Between Dege and the Cho La Pass and also Luo Gou Haii]

Habenaria wolongensis 2011 between Litand and Tsosum mountain

Hemipilia flabellata large round spotted basal leaf. Few flowers, white with pink and

green marks. 2011 Yailing to Kangding

[Herminium alashanicum relatively tall and slender musk orchid, quite common in

grasslands especially in Danba, Luhou and Ganze areas]

[Herminium josephii relatively tall and slender musk orchid, lip entire, 2-leaved, lip

spurless, flower not second, yellowish-green. Maniganga, Dege

and Dzo Dala]

Herminium monorchis Musk Orchid. Lip furcately 3-lobed, lobes linear, 3-4 leaves,

petals rhombic. Widespread, often in large dense colonies. 2011

same

[Herminium ophioglossoides relatively tall and slender musk orchid, lip 3-lobed, plant with

one leaf. Common and widespread on grasslands around Balang

Shan and Danba]

[Liparis sp tiny brown-flowered species under mossy forest lower Balang

Shan]

Malaxis monophyllos slender green orchid with two leaves on all plants we saw. 2011

Same

Neottia acuminata like a Lesser Twayblade. Pale tepals with dark brown central

stripes. On leaves, saprophytic. 2011 above Wolong

Neottia smithii delicate little twayblade with green white-edged flowers. Not

uncommon under forest lower sloeps of Balang Shan. 2011 same

Oreorchis patens like a rather glorified coralroot with many white, yellow and

brown flowers, and single dark green strongly veined leaf. 2011

above Wolong, also Luo Gou Hai

Peristylus jinshuanicus slender orchid with narrow spike of yellow-green flowers. Rather

Malaxis-like. 2011 between Luding and Ya'an.

Platanthera chlorantha particularly dense flower heads. Luo Gou Haii, 2011 same

Platanthera minutiflora delicate little butterfly orchid with yellow-green flowers. 2011 Luo

Gou Hai

Platanthera souliei tall twayblade-like species, large green leaves, yellow-green

flowers. 2011 Danba area

Pleione limprichtii abundant in leaf on mossy rocks between Danba and Luhou, one

still just on flower! 2011same

Ponerorchis brevicalcarata dwarf, one-leaved, 1-3 pink flowers, spur less than 1mm.

Scattered throughout under rhodos, in alpine grasslands etc. 2011

possibly this species between Litang and Yajlung

Ponerorchis chusua small pink orchid widespread and variable. 2011 same

Ponerorchis limprichtii one-leaved, the leaf purple on underside, flowers 2 to several,

rather large for size of plant, lilac to rose-purple, open.

Widespread. 2011 scattered on the plateau

[Ponerorchis sichuanica 2-5 leaved, pink flowers, leaves on stems, petals papillose/ciliate,

bracts =/less than ovary, stem and leaves green. Balang Shan area.

Other *Ponerorchis* were probably seen too!]

Spiranthes sinensis gorgeous little pink and white orchid with a twist. 2011 not far out

of Yajlang!

Systematic List Number 2 Birds

Nomenclature and taxonomy is taken from the Birds of China by MacKinnon and Phillipps (2000) and where species are found in it, from Birds of East Asia by Brazil (2009). An indication of frequency of sightings is given by the number of days out of 15 a species was seen on – thus 4/15 means a species was noted on four days during the holiday.

Tibetan Partridge Perdix hodgsoniae 2 between Litang and Daocheng

Snow Partridge Lerwa lerwa Balang Shan

Blood Pheasant Ithaginis cruentus a male on Tuor Mountain and a pair at the

monastery near Daocheng

White-eared Pheasant Crossptilon crossptilon 5 on the slopes of the pass between

Daocheng and Xiangcheng, and 6 at the

monastery near Daocheng

Ruddy Shelduck Tadorna ferruginea 2 Tsosum Mountain Anser indicus Bar-headed Goose 2 Tsosum Mountain

Crimson-breasted Woodpecker Dendrocopus cathpharius 2 en route to Yajlang

Scattered in the Litang and Daocheng parts Hoopoe Upupa epops

of the plateau. 5/15

Eurasian Cuckoo Cuculus canorus Scattered in the Litang and Daocheng parts

of the plateau. 5/15

Fork-tailed Swift Most frequent on and around Balang Shan. Apus pacificus

Columba livia Rock Pigeon widespread, mostly native forms! 15/15

Hill Pigeon Columba rupestris scattered. 3/15 Speckled Wood Pigeon Columba hodgsonii 4 Tsosum Mountain Oriental Turtle Dove Streptopelia orientalis scattered, 4/15 Spotted Dove Streptopelia chinensis Chengdu

Black-necked Crane Grus nigricollis 4 between Litang and Tsosum Mountain Ibisbill 1 between Litang and Tsosum Mountain Ibidorhyncha struthersii Redshank Tringa tetanus 2 near Litang and 1 near Daocheng

Common Tern Sterna hirundo a few around Litang. 2/15

Lammergeier Gypaetos barbatus seen on several occasions in the Litang

region. 3/15

Himalayan Griffon Vulture Gyps himalayensis widespread in small numbers throughout.

12/15

Golden Eagle Aquila chrysaetos a total of 3 seen. 3/15

Sparrowhawk sp Accipiter sp scattered. 2/15

Buteo hemilasius Upland Buzzard 1 between Danba & Yajlang, also a feather

on the Jainxi Pass

Black Kite Milvus migrans lineatus scattered. 3/15 Common Kestrel Falco tinnunculus scattered. 3/15

Chinese Grey Shrike Lanius sphenocercus 2 Gela La Pass and 2 Tuor Mountain

Grey-backed Shrike Lanius tephronotus widespread. 14/15

Red-billed Blue Magpie Urocissus erythrorhyncha a few in the Wolong area.23/15

Pica pica Magpie

widespread west of Balang Shan. 10/15 Hume's Groundpecker Pseudopodoces humilis common in the Litang area. 4/15 Red-billed Chough Pyrrhocorax pyrrhocorax common on the plateau. 6/15 frequent on the plateau. 6/15

Raven Corvus corax

Carrion Crow Corvus corone orientalis widespread. 8/15

Corvus dauuricus scattered west of Balang Shan. 4/15 Daurian Jackdaw

Large-billed Crow Corvus macrorhynchus scattered. 5/15 Black Drongo Dicrurus macrocercus singles Daocheng and Zhedou Shan Blue Rock Thrush Monticola solitarius 2 between Danba and Yajlang Blue Whistling Thrush Myophonus caeruleus widespread. 7/15 Chestnut Thrush Turdus rubrocanus widespread. 7/15 Kessler's Thrush Turdus kessleri common on the plateau. 8/15 White-tailed Rubythroat Luscinia pectoralis common on the plateau. 8/15 Black Redstart Phoenicurus ochrurus common west of Luhou and Litang. 7/15 Indian Blue Robin Luscinia brunnea a male near Wolong, also a roadkill there Phoenicurus auroreus Daurian Redstart **Tuor Mountain** Blue-fronted Redstart Phoenicurus frontalis widespread east of Balang Shan. 10/15 Hodgson's Redstart Phoenicurus hodgsoni Jainxi Pass White-throated Redstart Phoenicurus schisticeps a male between Litang and Daocheng White-capped Redstart Chaimarornis leucocephalus common along all watercourses. 13/15 Plumbeous Redstart Rhyacornis fuliginosa common along all watercourses. 10/15 Slaty-backed Flycatcher Ficedula hodgsoni a male between Litang and Daocheng Niltava davidi Fujian Niltava a female on lower slopes of the Balang Shan Grandala Grandala coelicolor a small flock on the Pass between Daocheng and Xiangcheng Stonechat Saxicola torquata scattered. 4/15 Wallcreeper 1 between Danba and Yajlang Tichodroma muraria Parus songarus 2 between Litang and Daocheng Songar Tit Rufous-vented Tit Parus rubidiventris 1 near Kangding Yellow-bellied Tit Parus venustulus lower slopes of Balang Shan and near Danba Coal Tit Parus ater Jainxi Pass Eastern Great Tit Parus minor scattered. 5/15 between Luding and Ya'an Black-throated Tit Aegithalos concinnus Sooty Tit Aegithalos fuliginosus between Luding and Ya'an **Eurasian Crag Martin** Ptyonoprogne rupestris only noted on the Zhedou Shan Barn Swallow Hirundo rustica Chengdu Red-rumped Swallow Hirundo daurica between Luding and Ya'an Asian House Martin widespread. 7/15 Delichon dasypus Brown-breasted Bulbul Pycnonotus xanthorrhous between Luding and Ya'an Light-vented Bulbul Pycnonotus sinensis Chengdu Collared Finchbill Spizixos semitorques Wolong Black Bulbul Hypsipetes leucocephalus Wolong and between Luding and Ya'an Leptopoecile sophiae White-browed Tit-Warbler scattered on the plateau. 3/15 Hume's Warbler Phylloscopus humei between Litang and Daocheng Phylloscopus pulcher probably this species between Litang and **Buff-barred Warbler** Daocheng Tickell's Leaf Warbler Phylloscopus affinis scattered on the plateau. 4/15 **Buff-throated Warbler** Phylloscopus subaffinis Balang Shan Lemon-rumped Warbler Phylloscopus chloronotus Danba area. 2/15 Chinese Leaf Warbler Phylloscopus yunnanensis Wolong. The very odd song is quite different from other Phylloscopus Greenish Warbler Phylloscopus trochiloides Daocheng area. 2/15 Large-billed Leaf Warbler Phylloscopus magnirostris between Danba and Yajlang Grey-crowned Warbler Seicercus tephrocephalus between Luding and Ya'an

Garrulax maximus

Giant Laughingthrush

2 on the Zhedou Shan

Elliot's Laughingthrush Garrulax elliotii widespread. 7/15 Hwamei Garrulax canorus 1 between Luding and Ya'an Chinese Babax Babax lanceolatus scattered. 3/15 Chinese Fulvetta *Alcippe striaticollis* 1 between Daocheng and Litang Vinous-throated Parrotbill Paradoxornis webbianus c.6 between Luding and Ya'an Oriental Skylark Alauda gulgula scattered. 4/15 Eremophila alpestris Horned Lark high passes and plateau. 9/15 Mrs Gould's Sunbird Aethopyga gouldiae a stunning male seen near Danba Yellow-bellied Flowerpecker Dicaeum melanoxanthum 2 near Yajlang Japanese White-eye Zosterops japonica 2 between Luding and Ya'an House Sparrow Passer domesticus 1 in Rilong! Tree Sparrow Passer montanus widespread. 15/15 Russet Sparrow Passer rutilans scattered. 5/15 Rufous-necked Snowfinch Montifringilla ruficollis 2 on pass between Daocheng and Xiangcheng and 1 on the Jainxi Pass Motacilla citreola Citrine Wagtail scattered. 3/15 White Wagtail Motacilla alba widespread. 15/15 Grey Wagtail Motacilla cinerea scattered. 2/15 Rosy Pipit Anthus roseatus widespread. 10/15 Olive-backed Pipit Anthus hodgsoni scattered. 2/15 Prunella collaris Alpine Accentor singles Balang Shan and the pass between Daocheng and Xiangcheng Rufous-breasted Accentor Prunella strophiata widespread in low numbers. 8/15 **Brown Accentor** Prunella fulvescens scattered. 4/15 Prunella rubeculoides 1 on the Gela La Pass and a nest on Tuor Robin Accentor Mountain Brandt's Mountain Finch Leucosticte brandti Tsosum Mountain Plain Mountain Finch Leucosticte nemoricola Balang Shan and Tsosum Mountain. 2/15 Carduelis sinica 2 between Rilong and Danba Grey-capped Greenfinch **Twite** Carduelis flavirostris scattered on the plateau. 4/15 Beautiful Rosefinch Carpodacus pulcherrimus widely scattered. 6/15 Red-fronted Rosefinch Carpodacus puniceus 2 of these large birds between Rilong and these rare and beautiful birds noted on the Pink-rumped Rosefinch Carpodacus eos Jainxi Pass and also between Danba & Yajlang. 2/15 Three-banded Rosefinch Carpodacus trifasciatus 1 on the Jainxi Pass Spot-winged Rosefinch Carpodacus rhodopeplus **Tuor Mountain** Chinese White-browed Rosefinch Carpodacus thura dubius scattered. 4/15

Streaked Rosefinch

Carpodacus rubicilloides stunning large rosefinch, the name hardly does them justice! Just 1 on Tsosum

Mountain

Red Crossbill Loxia curvirostra 3 between Litang and Daocheng White-winged Grosbeak Mycerobas carnipes 3+ at monastery near Daocheng Godlewski's Bunting Emberiza godlewskii scattered, mainly Kangding area. 3/15