

Yunnan in Autumn

A Tour for the Alpine Garden Society

A Greentours Trip Report

16th – 30th September 2010

Led by Chris Gardner

Days 1 & 2 September 16th & 17th The journey to Yunnan

Various options were taken to reach Yunnan from the UK, I flew via Bangkok as did Stan and Patricia arriving at Kunming on day 2 to meet the rest of the group, eventually continuing onto Baoshan where we spent the first night.

Day 3 September 18th Gaoligongshan

Leaving at nine o'clock we drove roughly north towards Luki (Lushui) stopping after an hour for a fine plant of *Hydrangea villosa* in flower. There was also a blue flowered *Physalis* and a superb hairy moth caterpillar, together with a specimen of the rare conifer *Cunninghamia lanceolata* planted in a garden. A bit further along and we stopped for a fine yellow flowered hibiscus relative *Abelmoschus manihot* with narrow lobed palmate leaves, one of which had a lovely clearwing moth on. A police checkpoint held us up for a while, but this at least gave us the chance to look at the many butterflies and dragonflies in a small stream finding the handsome *Orthetrum sabina*, *Orthetrum festiva*, red-winged *Neurothemis* sp and the tiny but stunning *Agriocnemis pygmaea* with golden-orange abdomen tipped with neon blue. A large Danid Eggfly shone its blue flashes for a while before it was time to move on.

After lunch we climbed into the verdant, forested hills stopping first to walk along a little track where there was a good display of the scented pink flowered shrub *Luculia gratissima* as well as a tall and fine *Thalictrum* sp. (like a form of *delavayi* but with depauperate sepals and longer anthers). A heavy rain shower rather curtailed efforts here but we stopped again for the shrubby aster relative *Microglossa* sp, the small flowered *Swertia macrosperma* and a yellow balsam. Not much further on were fine patches of blue *Halenia elliptica*, a couple of *Satyrium ciliatum*, two species of *Anaphallis* (*congesta* and *margaritaceum*) and many blue berried shrubs of *Gaultheria forrestii* as well as a flock of Black-browed Tits. Mists were coming and going but after a brief stop for big-leaved shrubs of *Rhododendron sinogrande* a wonderful view opened up with sun-kissed forest cloaked hillsides and battered mossy trees in the foreground with clouds drifting across the slopes.

Day 4 September 19th Gaoligongshan

The morning was clear with views of the forested mountains in both China and Burma. A rich assortment of moths had gathered during the night as well as some fascinating clear-winged mantids. We made our way slowly up the mountain stopping frequently, first for the superb *Swertia bimaculata* which was growing in abundance in a small clearing. There was also the odd plant of *Lobelia gruinii* with slender-lobed flowers, a huge cicada with golden reticulate wing-veins and the odd plant of *Swertia cincta*. The latter we found again at our next stop where there was also much more *Lobelia*. A passing mixed flock of birds included the pretty White-tailed Nuthatch. The birdlife continued later with a Black Eagle circling slowly above and a female Large Cuckoo-shrike as we looked at a huge *Cirsium* sp and then Black-chinned Yuhina calling from an exposed perch as we photographed a good population of the purple form of *Aconitum nagarum* growing with some pale blue *Cicerbita* sp and a handsome *Buddleja forrestii* with a couple of palest orange flowers spikes on. The interesting climbing monkshood *Aconitum tsaii* was not far away scrambling among a clematis vine, but as we enjoyed this and the many fine balsams below the clouds let rip. Fortunately we had a semi break in the rain to enjoy the deep pink *Allium wallichii* at the pass before making our way down in the rain. It remained heavy and unappealing for plant hunting until after lunch when we stopped a couple of times including once for a good view of the Salween River, before we arrived at the hotel.

Day 5 September 20th To Shaxi via Yunlong

Today was one of those days! We set off on a fine sunny morning with crystal clear hills all around and golden rice fields in the valleys. We knew we had to make some ground up early and so rarely stopped. Our first obstacle was roadworks, which stopped us reaching the fast motorway, then we encountered far more extensive works on the 'quicker' road to Yunlong and these proved impassable in the end with a bogged down bus blocking the road forcing us to back track. After a late lunch in a shady spot backtracked further then took an alternative route that eventually got us to Yunlong. However, I opted to stop a few times to give us something from the day, first a stand of young *Cunninghamia lanceolata* (a rare conifer related to monkey puzzles) and some striking caterpillars feeding on roadside shrubs, then our first taste of the soft-blue *Codonopsis convolvulacea* and growing near this was an edelweiss and an unusual conifer. The sweetly-scented climber *Porana duclouxii* was next tumbling over roadside rocks along with another unusual climber and yellow *Meremia hungaensis*. There were fine views across the typical countryside of neat villages and immaculate fields.

The remainder of the journey was a determined drive to get to Shaxi negotiating a long cross country route and arriving well after dark, but we did at least see Yunnan by moonlight!

Day 6 September 21st To Lijiang

We awoke in our charming wooden guesthouse in Shaxi with sun streaming through the windows. There was time to look around the town with its cobbled streets and traditional buildings, hidden courtyards with giant magnolias and quiet little cafés. Setting off across the fast ripening countryside there were many Black Drongos sat on the wires and Red-rumped Swallows gliding overhead. We stopped for a view of the fields and villages then headed west

towards Lanping. However, Chinese road building yet again thwarted us, the chaotic road management ensuring that we had to abandon our attempt to reach the pass on this road. Lunch was taken watching a women's weightlifting contest before we proceeded north for a while before turning onto a minor road that took us into the hills between here and Lijiang.

Finally we were among flowers with a rich variety of orchids hidden among the scrubby areas with stout *Satyrium cilliatum*, the very pretty *Spiranthes chinensis*, a nearly finished *Habenaria mairiei* and a slender musk orchid. There were also fine *Codonopsis convolvulacea* and another unknown species together with the two species of edelweiss, the lousewort a form of *Pedicularis gracilis*, an *Aster* sp, mauve and hairy *Cyananthus incanus* and the delicate pale blue bells of *Adenophora khasiana*. Orchids were also abundant at our next stop at a meadow full of *Satyrium cilliatum*, edelweiss and occasional musk orchids. The last stop of the day produced the variable blues of fine-leaved *Delphinium grandiflorum* and rosy-purple *Clematis ranunculoides*.

The last leg of the journey today was a picnic compared to yesterday and we were soon enough in our hotel at Shuhu as a Black-shouldered Kite soared overhead.

Day 7 September 22nd Yulong Shan and Wenghai

Overcast but calm as we drove up above the broad valley floor and along a bumpy road, stopping first for *Impatiens delavayi* and *Clematis ranunculoides* as two Nutcrackers fed and called noisily nearby. Not much further on were many purple *Delphinium ceratophorum* along with *Saxifraga eregia* and the delicate *Silene gracilicaulis*. Buff-barred Leaf-Warblers and White-naped Yuhinas were buzzing about the shrubberies. Continuing we stopped for some out-of-season *Roscoea cautleoides* and then found the trailing *Cyananthus longiflorus* along with *Pedicularis comptoniifolia*. Down the road a bit and another fine clump of *Cyananthus longiflorus* was hanging from a roadside bank and there was plentiful *Gentiana yunnanensis* and the sweet-scented *Buddleja yunnanensis*. At the lakeside village of Wenghai the road was lined with masses of *Impatiens delavayi* and on a small cliff-face was lots of pretty lilac *Corallodiscus lanuginosus* and tumbling masses of *Saxifraga brachypoda* as well as the delicate *Arenaria barbata*.

We had lunch in a pleasant courtyard restaurant and then drove towards Yulong Shan. Our first stop here among the scrubby open pines was for the tall white scabious *Pterocephalus hookeri*, which grew alongside a *Saussurea*, *Cyananthus incanus*, two small annual gentians and a dwarf edelweiss smothered in pollinating insects. A little valley further along was a veritable treasure trove of plants with the white bulb *Ophiopogon grandis/mairiei*, the annual *Cyananthus inflatus*, the deep purple *Salvia przewalskii*, mauve-blue *Gentiana primuliflora*, huge stands of *Nepeta stewartiana*, delicate yellow saxifrages, pale pink fringed *Silene longicornuta* and a bush smothered in the hanging blue monkshood *Aconitum tsaii*. Black-browed Tits foraged through the trees above the valley and Nutcrackers called as we moved from one delightful plant to the next.

Our last stop was no less flowery with huge numbers of pale yellow *Salvia digitaloides* scattered across a large area of open pines along with purple *Dracocephalum forrestii* and stands of blue *Halenia elliptica*. The white of *Parnassia delavayi* was scattered about the turf along with the sticky stemmed pink *Silene delavayi*. Sunbeams were bursting across Yulong Shan as we departed for the hotel after a very productive day.

Day 8 September 23rd To Zhongdian via Tiger Leaping Gorge.

An early start was necessary to make the most of the day setting out pre-dawn and reaching the famous Tiger Leaping Gorge in time for breakfast and there were some superb misty gorge and mountain views on the way. After enjoying the scenery we returned to the botany and climbing out of the gorge we stopped first for two species of clematis growing opposite each other – white *Clematis delavayi* and creamy *peterae*, along with the white spikes of *Lysimachia taliense*. Our next location was a swertia wonderland with a superb spread of both four-petalled purple *Swertia patula* and five-petalled pink *delavayi*. Amongst all of this finery were also a fantastic big moth and the yellow of *Siphonostegia chinensis*.

Lunch was taken at Baoshuitai and then continuing up we stopped to walk up a muddy side track where *Gentiana cephalanthera* was hanging from the banks with its pale lilac flowers. *Saxifraga brachypoda* was common along the roadside as we gained height, finding a few of the pretty *Lomatogonium bellum* at another stop where the adjacent turf was also inundated with purple *Cyananthus hookeri* and white *Gentiana yunnanense*.

Day 9 September 24th Tianchi Hai

Driving across the clear plateau we turned off and soon stopped at a typical Tibetan village for a look around at the houses, wooden racks filled with hay or turnips and all laced with red ‘bushes’ of *Euphorbia nematocypha*. Not much beyond the village we found many new flowers with powder-blue *Comastoma traillianum*, the mauve-blue *Lomatogonium rotatum*, creeping mats of *Cyananthus delavayi*, four-petalled mauve *hookeri* and then our first trumpet gentian *Gentiana veitchiorum*. The broad-leaved but uninspiring *Gentiana crassicaulis* was also found along with a stand of slender *Gentianopsis grandis*. Continuing on we stopped again for some much larger patches of *Comastoma traillianum* and also found nearby the slender purple flowered *Aconitum scaposum*, the pink form of *Impatiens delavayi*, and yellow *Sedum oreades*. The gentians continued a bit further up with *Gentiana delavayi* which was growing with pretty soft-blue *Cyananthus inflatus*.

Reaching the silvery-grey waters of Tianchi we set about looking for more gentians soon locating the stunning *Gentiana arethusae* including some large clumps among the rhododendron bushes. The sun was trying to break through and eventually did enough to fully open these lovely flowers. Occasional plants of *Aconitum brachypodum* and large clumps of *Pedicularis siphonantha* were seen and there was a fair number of purple *Primula amethystina* too. However, the prize displays went to *Gentiana sino-ornata* that gilded the marshy areas with some spectacular dense patches around the smaller side ponds to the lake.

Returning along the same bouncy track we stopped for some bright blue *Microula sp* (a borage) saxifrages and superb stands of *Gentianopsis grandis* and after a view of yaks, red spurge and rural landscapes our final stop was for the lovely pale blue *Gentiana haynaldii* that speckled the banks for a mile along the track.

Day 10 September 25th Baima Shan

China's propensity for roadworks meant we had a long day ahead of us to negotiate the various humps and bumps, passing at first by the perfectly reflected wooden racks near Napa Hai and then winding along tortuous valleys with spectacular landscapes all around. A diversion took us to a bridge between Sichuan and Yunnan where we had lunch and then began to climb on a dirt road past neat farms and big walnut trees stopping after a while for *Delphinium grandiflorum*, bushes of golden flowered *Wikstroemia canescens* and the wonderful butterfly orchid *Habenaria glaucifolia*. The intense autumn colours of *Sorbus rehderiana* looked superb against the blue sky as we made our way through beautiful fir forest to the higher reaches of Baima Shan. It didn't take long to locate a good population of pale to mid-blue *Gentiana hexaphylla*. A second gentian *Gentiana nanobella* followed growing in dense clumps with some lovely deep purple *Delphinium beesianum* and the odd *Cyananthus flavus*.

Day 11 September 26th Baima Shan

Sadly Meli Shan was well wrapped in amorphous clouds this morning and no meaningful views were to be had. We at least hoped that Baima Shan would be clear enough to explore and indeed the weather was improving as we drove up, and we were soon up on the clear high alpine areas. We set out across the short turf towards craggy lines of rocks with big sweeping scree above seeing plenty of *Delphinium beesianum*, *Lomatogonium carinthiacum* and pink *Pedicularis przewalskii* scattered throughout and it didn't take too long to find the first sumptuous lilac bell of *Gentiana georgei*. Peter and Ashu climbed higher into the scree and I also checked out a second area, between us finding four of the extraordinary *Saussurea medusa*, the eight-inch high flowering stems smothered in overlapping woolly-haired leaves and topped by a fluffy head of old flowers and seeds. Returning there were a few yellow *Cyananthus flavus* and *Allium chrysantha* before the rain swept in just as we arrived at the cars.

The rain had eased by the time we stopped for lunch among the larch forests as a magnificent double rainbow spanned the valley. The pretty pink *Arenaria euodonta* was found and there were fine cones of the *Abies delavayi* and pink berries on the *Sorbus rehderiana*. We stopped at various spots on the way down, first for an unseasonal but nonetheless pristine group of *Primula sikkimensis* that illuminated a dark streamside, then a second spell searching for Martin's lost lens, which Ashu managed to find after he burrowed into the undergrowth to Martin's great relief! Tumbling masses of *Clematis brevicaudata* were lower down as we retraced our route of yesterday passing from fine forests into neat farms and walnut orchards and then down to the Yangtse. All that was left was to drive the remaining distance to Zhongdian taking dinner on the way and arriving late but florally successful.

Day 12 September 27th Hong Shan

Always a productive area in spring and summer, the impressive Hong Shan proved equally rewarding in the autumn. We drove almost directly to 4200 metres stopping by a placid lake ringed by rhododendrons. In the stony turf were numerous long-tubed *Gentiana caelestis* and the slender mauve-blue *Aconitum pulchellum*, whilst damper places had the odd flat rosettes of

Saussurea stella and white *Arenaria napaulensis*. Climbing a bit higher we strode out onto an excellent area of alpine turf with extensive scree above it. There were plentiful *Gentiana arethusae* and various saxifrages and as the turf merged with the scree many pretty blue *Allium beesianum* and a still flowering (and with several buds to come) *Meconopsis rudis* was a real surprise. The scree was actually relatively easy to negotiate, only the altitude slowing us down and after A-dong and Nong-bu triumphantly returned from the summit ridge waving fine plants of (medicinal) *Saussurea quercifolia* we were spurred on to climb further eventually finding some fine specimens of this plant. Accompanying these were the white and black umbels of *Pleurospermum sp.* A second scree slope had a scattering of *Synclathium himalaicum* and a flowering *Eriophyton wallichii*. The former was far better and more abundant at our post lunch stop where a steep slope was peppered with the purple-flowered rosettes. However above these was a truly glorious flower, the stunning *Cyananthus formosus* with very large hairy throated mauve-blue flowers. There was just time to photograph these before the rain arrived and we soon turned back and began our descent stopping only for the fruits of *Sinopodophyllum hexandrum* before we reached tarmac again. The surprise sighting of a tall pale-yellow *Cremanthodium sp.* caused us to stop as we neared Zhongdian and scanning the marshes opposite with binoculars revealed thousands of *Gentiana sino-ornata* in a superb range of colour-forms to round off the day.

Day 13 September 28th Zhongdian's Gentians

We drove a very short distance and parked immediately on the outskirts of town setting out along track that climbed above the fast-expanding urban sprawl. There were a few *Pedicularis tricolor*, a *Daphne aurantiaca* and mixed flock of rosefinches, Godlewski's Buntings and warblers. Cresting the ridge we were presented with a wonderful flowery scene with the scrub and turf beyond brimming with autumn flora with masses of *Comastoma traillianum* mingling with red *Euphorbia nematocypha*, taller forms of purple *Delphinium beesianum*, fine clumps of pink *Pedicularis siphonantha*, the slender stemmed *Gentianopsis grandis* and a peppering of *Gentiana haynaldii*. Marshy areas had some good bright yellow *Pedicularis longiflorus* subspecies *tubiformis*. Walking a bit further the dark-blue tubes of *Gentiana veitchiorum* grew more numerous growing with masses of pale blue *Gentiana haynaldii* and tall silvery *Leontopodium spp.* It was an enchanting sight.

After this some of the group returned to the town and the rest continued the botany with a revisit of the marsh gentian site from yesterday. We were rewarded with the sun breaking through and the multitude of 'glowing' blue tubes gilding the marshes and making photographic choices difficult!

Days 14 & 15 September 29th & 30th to Kunming and UK/HK/TK, etc

A fine sunny day and no problems with flights that I'm aware of has us reaching various destinations as planned.

Systematic List Number 1 Flora

The following represents the main flowers seen during the autumn visit to western China, however, many non-flowering and fruiting species were seen and are included. The flora of Yunnan amounts to 15000 species so for obvious reasons the full flora is a monumental task and to this end many woody genera remain unrepresented at this moment in time. Also a number of genera are particularly difficult e.g. anemone and therefore they could not be identified in the field, for others such as legumes, saxifrages and asteraceae we currently have no floras available so these also remain unknown for now.

Pinaceae

<i>Abies delavayi</i>	The widespread fir
<i>Cunninghamia lanceolata</i>	Monkey Puzzle-like conifer en route to Yunlong
<i>Larix</i> sp	Component of upland forests e.g. Baima Shan
<i>Pinus yunnanense</i>	The widespread pine

Ranunculaceae

<i>Aconitum brachypodum</i>	Tall, blue flowers and dissect leaves, Tianchi [Baima Shan - not 2010]
<i>Aconitum hookeri</i>	Handsome very deep purple flowers, simple pedicel ovate bracts. Appears to be a colour form of this species on Gaoligongshan
<i>Aconitum pulchellum</i>	Elegant soft mauve-blue species, few flowered, Hong Shan
<i>Aconitum scaposum</i>	Deep purple with slender long flowers en route to Tianchi
<i>Aconitum tsaii</i>	Unusual climbing species with mid-blue flowers and reddish stems that twine. Gaoligongshan, Yulong
<i>Adonis brevistyla</i>	A few in flower below Tianchi, white flowers dissect leaves
<i>Anemone demissa</i>	White flowers, widespread in small numbers at this season in various turf and grassland.
<i>Anemone hupehensis</i>	The familiar garden species common on the Gaoligongshan. Tall, large leaved white flowers with deep pink reverse.
<i>Caltha scaposum</i>	A few on Shika Shan
<i>Cimicifuga foetida</i>	Tianchi and Wenghai
<i>Cimicifuga</i> sp	Large species in flower on Gaoligongshan
<i>Clematis brevicaudata</i>	Creamy flowers, below Baima Shan
<i>Clematis chrysocoma</i>	An attractive pink flowered species on Yulong Shan, growing as a small scrambling shrub
<i>Clematis delavayi</i>	White, open flowers, shrubby, above TLG
<i>Clematis peterae</i>	Creamy flowers, above TLG
<i>Clematis ranunculoides</i>	Purplish-red bells, widespread e.g. Wenghai, Yulong
<i>Delphinium beesianum</i>	Large purple flowers, long spur and dissect leaves, height variable Baima Shan, Zhongdian
<i>Delphinium ceratophorum</i>	Fine deep blue-purple species at Wenghai
<i>Delphinium delavayi</i>	Lanping on rocky slopes
<i>Delphinium grandiflorum</i> ssp <i>mosoyense</i>	Lovely deep to mid-blue flowers, dissect leaves West of Lijiang, Yulong, below Baima
<i>Delphinium yongningense</i>	[Possibly this species at Yulong, although flowering time seems out. Spicate with dissect leaves, purple flowers. Not 2010]
<i>Delphinium yuanum</i>	[Zhongdian botanic reserve, tall dark blue with many flowered branched inflorescence. Not 2010]
<i>Oxygraphis glacialis</i>	Little 'celandine' in alpine turf and marshsides
<i>Thalictrum</i> sp	Very large species on Gaoligongshan, closest to <i>delavayi</i> , but stamens wrong shape, new form?

Berberidaceae

Berberis sp Various species in fruit

Fumariaceae

Corydalis sp Pink species on Baima and Hong Shan
Corydalis yunnanensis Bright yellow flowers, Tianchi

Parnassiaceae

Parnassia delavayi Yulong

Podophyllaceae

Sinopodophyllum hexandrum Large egg-shaped fruit and dissect, marbled leaves, Hong Shan, etc

Polygalaceae

Polygala arillata [Attractive red, disc-like fruits with yellow seeds, Gaoligongshan. Not 2010]

Crassulaceae

Sedum multicaule Common species at mid altitudes e.g. TLG
Sedum oreades Widespread round-headed species in Zhongdian area Yulong

Saxifragaceae

A confusing family, with many more species seen than recorded here.

Saxifraga brachypoda Yellow flowers, tumbling clumps on rock faces, banks at Wenghai, Zhongdian, etc. Widespread
Saxifraga eregia Yulong, Tianchi, etc tallish with broad rounded leaves, yellow flowers
Saxifraga filicaulis Linear, acute leaves or varying sizes along trailing stems, yellow flowers. Near Zhongdian.
Saxifraga rufescens Tianchi and a plant in flower at Yulong
Saxifraga strigosa (?) White flowers, large rosettes of linear acute leaves widespread e.g. Gaoligongshan, Lanping, Yunlong

Caryophyllaceae

Arenaria barbata Lovely species with pale pink frimbriate flowers, Wenghai
Arenaria euodonta Pink flowers, Baima Shan
Arenaria napaulensis Large white flowers, Hong Shan
Arenaria oreophila Cushion forming. Balang Shan, Hong Shan, on high ridges and screes
Silene delavayi Long calyx but small petals, sticky, Yulong in short turf
Silene gracilicaulis Tall stems and oval-calyces with purplish veins and spiderly white flowers, Wenghai
Silene longicornuta Pretty pink species in rock crevices, Yulong Shan
Silene nigrescens Scattered in mountains, strongly veined and inflated calyx

Polygonaceae

Polygonum runcinatum Common low growing, globular to short-conical flowerheads, pink e.g, Gaoligongshan

Geraniaceae

Geranium delavayi

Scattered downward pointing pale pink flowers. [Also wonderful deepest purple form at Yunlong – not 2010]

Geranium sp

Widespread small pink species

Balsaminaceae

No flora available at present

Impatiens delavayi

Abundant in damp places at Wenghai, a pink form at Tianchi

Impatiens sp

Fabulous deepest purple species, Yunlong

Impatiens sp

Common yellow species on Gaolingongshan

Impatiens subcalcarata

Lovely bluish-pink flowers, Gaolingongshan

Papaveraceae

Meconopsis rudis

One in good flower on Hong Shan

Apiaceae

Pleurospermum sp

High alpine umbellifers with white and black flowers

Trachidium roylei

Similar to *Pleurospermum* but much smaller, Baima

Rubiaceae

Luculia gratissima

Scented pink flowers, common shrub on Gaolingongshan

Thymeleaceae

Daphne aurantiaca

Yellow flowers, one in flower near Zhongdian

Wikstroemia canescens

Possibly this species below Baima

Hypericaceae

Hypericum forrestii

Very common on roadsides

Hypericum sp

[Small shrub in flower on Gaolingongshan. Not 2010]

Melastomaceae

Oxyspora sp

Paniculate and pendulous shrub on Gaolingongshan

Euphorbiaceae

Various species added red autumnal tints to the woods and meadows

Euphorbia nematocypha

The dominant 'red' spurge on the Zhongdian plateau

Hydrangeaceae

Hydrangea aspera ssp villosa

Probably two subspecies seen on Gaolingongshan, some in good flower

Hydrangea heteromalla

A few flowers remained here and there, widespread e.g. Baima

Rosaceae

Cotoneaster spp

Various species in fruit

Filipendula ulmaria

Wet flushes near Lanping

Fragaria orientalis

Very common on banks, in fruit on Gaolingongshan

Potentilla curviseta (?)

Possibly this species with large yellow flowers and *Sibbaldia*-like tri-part leaves, Baima.

Potentilla discolor

Possibly this species on Yulong

Prunus serrula

Lovely shining red, peeling bark and orange-red autumn tints, en route to Zhongdian,

<i>Rosa omeiensis</i>	Prominent red thorns, scattered
<i>Sorbus hupehensis</i>	White berried species on Baima
<i>Sorbus rehderiana</i>	Common pink fruited species e.g. Baima
<i>Spenceria ramalana</i>	Very common in meadows at Yulong Shan and scattered elsewhere
<i>Fabaceae</i>	
<i>Indigofera</i> sp	Fantastic long racemed species in flower on Gaoligongshan
<i>Indigofera</i> spp	A number of species from sub shrubs to small trees were seen but not Identified
<i>Salicaceae</i>	
<i>Salix brachista</i>	[Prostrate species on Shika Shan turf. Not 2010]
<i>Salix</i> spp	Other species seen, often planted
<i>Betulaceae</i>	
<i>Betula utilis</i>	Widespread, peeling bark
<i>Fagaceae</i>	
<i>Quercus aquifolioides</i>	Widespread evergreen oak with ovate, obtuse leaves
<i>Quercus</i> spp	Other unidentified species seen including a spiny one akin to <i>coccifera</i> of the Mediterranean
<i>Caprifoliaceae</i>	
<i>Lonicera glabrata</i>	Gaoligongshan
<i>Convolvulaceae</i>	
<i>Meremia hungaiensis</i>	Widespread near Yunlong, a yellow flowered bindweed
<i>Porana duclouxii</i>	Sweetly scented tumbling vine, white flowers, en route to Yunlong, sometimes covering large areas.
<i>Aceraceae</i>	
<i>Acer cappadocicum</i>	Yulong Shan
<i>Acer forrestii</i>	Probably this species in mixed forests around Zhongdian
<i>Araliaceae</i>	
<i>Aralia elata</i>	Spiny stems, large pinnate leaves, Gaoligongshan
<i>Ericaceae</i>	
<i>Gaultheria fragrantissima</i>	Attractive deep blue fruited species on Gaoligongshan. Originally identified as <i>hookeri</i> which is similar, but leaves smaller
<i>Rhododendron decorum</i>	Slightly glaucous oval leaves, common in mid-altitude forests
<i>Rhododendron phaeochrysum</i>	Dominant in high areas e.g. Tianchi, Hong Shan, rusty indumentum
<i>Rhododendron sinogrande</i>	Very large deep veined leaves, Gaoligongshan
Many more rhododendrons were seen but now is not their flowering time so they are not included in this autumn list	
<i>Dipsacaceae</i>	
<i>Dipsacus enermis</i>	Tall creamy 'teasel', widespread
<i>Pteroccephalus hookeri</i>	Handsome scabious, common at Yulong, globose heads of white flowers and linear leaves

Cannabinaceae

Cannabis sativa Occasional roadside weed

Solanaceae

Datura stramonium Widespread. White trumpets, alien weed
Nicandra physalodes Blue flowers and large round fruits, a roadside weed in places

Asteraceae

Anaphalis contorta Abundant on Gaoligongshan, dense heads of 'everlasting' white flowers and whorls of greyish leaves.
Anaphalis margaritaceum Tall with well spaced long leaves, Gaoligongshan, Yulong, etc
Anaphalis nepalensis Widespread
Anaphalis sp Larger species common at Wenghai
Cicerbita sp Fine blue flowered species on Gaoligongshan
Cicerbita sp 2 Attractive species with dense cymes on small tubular brownish-red flowers, Gaoligongshan
Cirsium bolocephalum Large thistle with pendant flowers, Wenghai
Cirsium eriophorum An immense thistle with yellow flowers (one specimen topping five metres tall 2009). Gaoligongshan. Probably this species as yellow flowered form.
Leontopodium haplophyllum Probably this is the tall long leaves species seen, e.g, Yulong
Leontopodium spp At least three species at Wenghai as yet unidentified
Leontopodium subulatum Slender upright species, Zhongdian
Ligularia spp A number of flowering species seen but not identified
Saussurea medusa Some inflorescences and many rosettes on Baima Shan at between 4550 and 4700 metres. A wonderful species with tall woolly domes and rosettes of undulate leaves.
Saussurea nepalensis Probably this widespread species seen, but over 250spp of *Saussurea* in China! Stemless purple thistle flowers and pinnate leaves
Saussurea nidularis Dark green linear leaves, woolly, Hong Shan.
Saussurea quercifolia Peculiar inflorescences of overlapping hairy serrate leaves. Hong Shan
Saussurea sp Linear leaved species at Yulong Shan
Saussurea stella Peculiar rosettes of long pink central leaves with purple flowers 'thistle' heads in between. Wet areas on Zhongdian Plateau
Synclathium himalaicum (?) Similar to *soulei* except much larger flowers, Hong Shan
Synclathium soulei Rosettes of pinnate leaves with central mass of purple flowers, Baima

Loganiaceae

Buddleja forrestii Large species with pale orange flowers, Gaoligongshan
Buddleja yunnanensis Short racemes of bluish flowers, near Wenghai

Diapensiaceae

Diapensia purpurea A few pink flowers on Hong Shan

Droseraceae

Drosera peltata En route to Shuhu, growing in mossy turf with orchids.

Gentianaceae

Comastoma falcatum Purple flowers, small. Baima
Comastoma pulmonarium Possibly this species on Hong Shan. Similar to *traillianum* but longer tube

<i>Comastoma traillianum</i>	The dominant species around Zhongdian, powder blue flowers with prominent white staminal mass.
<i>Gentiana arethusae</i>	Simply stunning light blue species with darker stripes, Tianchi Hai, Shika Shan. Very close to <i>hexaphylla</i> and perhaps one and the same
<i>Gentiana atuntsiense</i>	Tall bright blue species near Tianchi Hai
<i>Gentiana caelestis</i>	Handsome tubular flowers of mid-blue and white, like a tidier <i>sino-ornata</i> . Hong Shan
<i>Gentiana cephalanthera</i>	Purplish flowers set among tight rosette of large, long leaves on trailing stems, Wenghai, en route to Zhongdian.
<i>Gentiana crassicaulis</i>	Dense heads of small lilac flowers and very large leaves, Zhongdian
<i>Gentiana delavayi</i>	Dark blue-violet flowers on small upright plants, Tianchi Hai, also Baima Shan
<i>Gentiana georgei</i>	Lovely purple trumpets, tight rosettes, Shika Shan, common on Baima Shan
<i>Gentiana haynaldii</i>	Light blue, gray lines in throat, small flowered species common among pines en route to Tianchi Hai and elsewhere.
<i>Gentiana hexaphylla</i>	Beautiful light blue with dark striped trumpets, very common on Baima Shan
<i>Gentiana nanobella</i>	Light to mid-blue flowers, alpine turf and stable scree Baima Shan
<i>Gentiana primuliflora</i>	The common gentian in Yulong grasslands, blue flowers, pairs of cordate leaves
<i>Gentiana sino-ornata</i>	Common marsh gentian e.g. Wenghai, Zhongdian, Tianchi Large striped mid-blue flowers, with variable patterns, marshy habitats.
<i>Gentiana veitchiorum</i>	Zhongdian Plateau, fine species with deep blue trumpets, striped darker blue and white, drier grasslands
<i>Gentiana yunnanense</i>	Common white gentian e.g. Wenghai, Yulong dense flowered upright habit, black speckles
<i>Gentianopsis barbata</i>	Smaller than previous with same uneven calyx lobes but flowers 2.5-5cm. Scattered and overlooked
<i>Gentianopsis grandis</i>	Scattered, good colony en route to Tianchi Hai, large purple flowers on wiry stems
<i>Halenia elliptica</i>	Pretty pale blue and white flowers a bit <i>aquilegia</i> -like, with recurved 'horns', abundant roadside weed.
<i>Lomatogonium bellum</i>	Lovely species with pale blue dark blue-veined flowers, en route to Zhongdian
<i>Lomatogonium carinthiacum</i>	Fine lilac-purple species common in turf on Baima Shan, Hong Shan
<i>Lomatogonium forrestii</i>	Palest lilac, in marshes at Tianchi Hai
<i>Lomatogonium rotatum</i>	Small blue flowers en route to Tianchi Hai, Zhongdian
<i>Swertia bimaculata</i>	Splendid large species with creamy-white flowers with fine purple spots, Gaoligongshan
<i>Swertia cincta</i>	Green and purple downward pointing species, Yunlong, Lanping
<i>Swertia delavayi</i>	Another fine species, pink flowers with darker veins, growing with <i>S. patula</i>
<i>Swertia macrocarpa</i>	Common small flowered species Yunlong, Lanping, Gaoligongshan
<i>Swertia patula</i>	Beautiful pale purple form with purple veins, common in gravelly areas of pinewoods north of Tiger Leaping Gorge
<i>Swertia pubescens</i>	[White flowers with fringed edges, Yulong, pubescent. Not 2010]
<i>Swertia punicea</i>	[West of Lijiang. Not 2010]

Myricaceae

Myrica rosea [Rose-red racemes, near Lanping. Not 2010]

Primulaceae

<i>Lysimachia taliense</i>	Spikes of white flowers near TLG
<i>Primula amethystina</i>	Quite a few at Tianchi, tubular purple flowers, low growing
<i>Primula deflexa</i>	[Odd flowers on Shika Shan, purple tubular flowers. Not 2010]
<i>Primula poissonii</i>	Scattered colonies in wet flushes with quite a few flowers, deep magenta with orange eye e.g. Yunlong, Lanping. Rare 2010
<i>Primula secundiflora</i>	Odd flowers in wet areas
<i>Primula sikkimensis</i>	A fine group in full flower below Baima
<i>Primula vialii</i>	[Colony in seed 2009, very rare and as such will not be shown – sorry!]

Boraginaceae

<i>Microula</i> sp	Blue flowers, below Tianchi
<i>Sinoglossum ambile</i>	Scattered along roadsides

Scrophulariaceae

Perhaps a fifteen or more species were seen, but many unidentifiable

<i>Lindenbergia muraria</i>	Small yellow flowered (<i>Cymbalaria</i> -like), upright herb, above TLG
<i>Mimulus tenellus</i>	Gaoligongshan, yellow flowers
<i>Pedicularis alopecuros</i>	Possibly this species at Yulong, yellow with purple galea
<i>Pedicularis comptoniifolia</i>	Upright with well spaced whorls of dentate leaves, purple-pink flowers, Wenghai
<i>Pedicularis deltoidea</i>	Small pink flowered species, triangular, dentate leaves Wenghai, Yulong. 2010?
<i>Pedicularis gracilis</i>	Tall branched species, pink flowers, Gaoligongshan, Yulong
<i>Pedicularis gracilis</i> ssp	Possibly another form attributable to this species between Shaxi and Lijiang, hairy leaves, pink flowers low growing on banks and turf
<i>Pedicularis hirtella</i>	[Pale yellow to pinkish with no beak and obvious large rosette of leaves, Yulong Shan, Wenghai. Not 2010]
<i>Pedicularis przewalskii</i>	Pink tubular flowers, low growing, Baima
<i>Pedicularis rhinanthoides</i> ssp <i>tibetica</i>	Wenghai in damp area near the lake
<i>Pedicularis siphonantha</i>	Quite widespread around Zhongdian deep pink with white centre and long twisted beak
<i>Pedicularis tenuisecta</i>	Upright, fastigiata species, pink flowers, dense dissect leaves near Wenghai
<i>Siphonostegia chinensis</i>	Yellow flowers. Among swertias near TLG

Gesneriaceae

<i>Corallodiscus lanuginosus</i> .	Blue/purple and white flowers and wrinkled leaves, superb colony at Wenghai.
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Malvaceae

<i>Abelmoschus manihot</i>	Large yellow hibiscus-like flowers, dissect leaves, en route to Lushui
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Actinidiaceae

<i>Actinidia chinensis</i>	'Kiwi-fruit' on Gaoligongshan
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Verbenaceae

<i>Clerodendron bungei</i>	En route to Yunlong
<i>Clerodendron peii</i> .	Common shrub in fruit en route to Wenghai

Lamiaceae

<i>Dracocephalum forrestii</i>	Purple flowers, narrow leaves, Yulong
<i>Dracocephalum propinquum</i>	En route to Baima
<i>Elsholtzia fruticosa</i>	Erect narrow, long white spikes on small to medium shrubs, various locations
<i>Eriophyton wallichii</i>	Similar to <i>Phyllophyton complanatum</i> but protruding white flowers, shorter plants. Hong Shan
<i>Lamiophlomis rotata</i>	Large crinkled leaves only on Baima,
<i>Nepeta</i> sp	Lovely tall species with airy sprays of pale blue flowers at Wenghai
<i>Nepeta stewartiana</i>	Yulong, Zhongdian etc, tall mauve-blue herb in dominant stands in places
<i>Phyllophyton complanatum</i>	Widespread in high screes on Baima and Hong Shan, overlapping crinkled leaves
<i>Salvia digitaloides</i>	Fine pale yellow species, very common on plateau at Yulong
<i>Salvia przewalskii</i>	Purple to pinkish-purple species at Yulong, Zhongdian
<i>Salvia subpalmatinervis</i>	Tianchi, similar to <i>prezawalskii</i> but smaller paler pink flowers

Campanulaceae

Cyananthus proved tricky, but please note most have been resolved below.

<i>Adenophora jasionifolia</i>	Large wide bells, narrow leaves. Yulong
<i>Adenophora khasiana</i>	Delicate pale blue bells on tall stems e.g. Lanping, Yunlong, Wenghai
<i>Campanula crenulata</i>	Solitary blue bells in turf at Tianchi
<i>Campanula</i> sp	[Fine shrubby species below Gaoligongshan. Not 2010]
<i>Codonopsis convolvulace</i>	Very common and widespread twining perennial, pale blue flowers. Other similar species may have been involved too!
<i>Codonopsis rosulata</i>	Another widespread species with smaller deep lilac-blue flowers with purple base to petals, non-climbing
<i>Cyananthus delavayi</i>	En route to Tianchi, longish tubes (appear striped), leaves rhombic to ovate 5 petals.
<i>Cyananthus flavus</i>	Baima Shan, soft yellow flowers
<i>Cyananthus formosus</i>	Superb species with very large flowers and long tubes, scree on Hong Shan (Shika 2009)
<i>Cyananthus hookeri</i>	Pretty small mauve-purple flowered annual species, 4 petals. Tianchi, above Zhongdian
<i>Cyananthus incanus</i>	Mauve-blue flowers with styles at throat, linear to elliptic hairy leaves, Yulong Shan and Wenghai
<i>Cyananthus inflatus</i>	Annual species with pale blue flowers and inflated calyces, widespread.
<i>Cyananthus longiflorus</i>	Lovely mauve flowers, hairy throats on trailing stems, large long-tubed flowers. Wenghai.
<i>Lobelia seguinii</i>	Lilac flowers, long up-curved petals. Gaoligongshan

Zingiberaceae

<i>Roscoea cautleoides</i>	A couple still in flower at Wenghai
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Liliaceae

<i>Allium beesianum</i>	Pretty soft to dark blue flowers, Hong Shan, Baima, Zhongdian
<i>Allium chrysanthum</i>	Pale yellow flowers in tight globular heads, Baima
<i>Allium wallichii</i>	Lovely deep cerise hemispherical flowerheads, angled stems. Gaoligongshan c2800m+
<i>Ophiopogon grandis/mairei</i>	Short white spikes on Yulong Shan, leaves, seems to sit between these two species

Polygonatum verticillatum Probably this species in fruit on Gaoligongshan

Iridaceae

Iris ruthenica One in flower above Zhongdian

Araceae

Arisaema consanguineum/ciliatum In fruit on Gaoligongshan

Arisaema elephas In fruit on Gaoligongshan

Orchidaceae

Goodyera schlechtendaliana [White flowers, hairy stems and attractive marbled leaves, near Yunlong. Not 2010]

Habenaria glaucifolia Lovely species with long curled sepals, below Baima

Habenaria mairei Thriving colony near Lanping but sadly over by at least a couple of weeks. Odd ones in flowers (just) near Lijiang 2010

Herminium sp [Very elegant tall species on Gaoligongshan c2800m. not 2010]

Herminium spp Other small species west of Lijiang

Satyrium ciliatum Pretty deep pink orchid, widespread and common. Gaoligongshan to Yulong

Spiranthes sinensis Stunning little pink and white orchid quite widespread in small numbers

Spiranthes spiralis Familiar white orchid, Yunlong