

**Discovering *Meconopsis* in Yunnan and Sichuan provinces,  
China (June 2016)**

**A report by Peter Edge**



**An Alpine meadow including *Meconopsis*, *Corydalis* and *Primula*, on Balang Pass**

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## Acknowledgements

A botanical trip is based on plants and discovery. As I can't thank the plants for being there in the first place I would like to thank my fellow travellers for helping me to discover the valleys, passes, meadows and forests of Western China. The imparting of information of the most botanically diverse locations and the identification of the plants has greatly increased my botanical knowledge. More than this my fellow travellers contributed to the experience and gave me a deep perspective of this wonderful region. I am grateful for their great company. I would like to thank the sponsors of our visit; the SRGC, Stanley Smith and most importantly the Merlin Trust. The latter organisation has helped me to experience this region twice now and left me with wonderful memories of wild landscapes that I will never forget. I have learnt far more about plants in the wild, the ecology and diversity of China and in particular the genera *Primula* and *Meconopsis* than I knew before. This information will be invaluable in my career and for my horticultural understanding.



***Our expedition party on the alpine meadows just North of Zheduo Pass. The author is on the right***

## Introduction

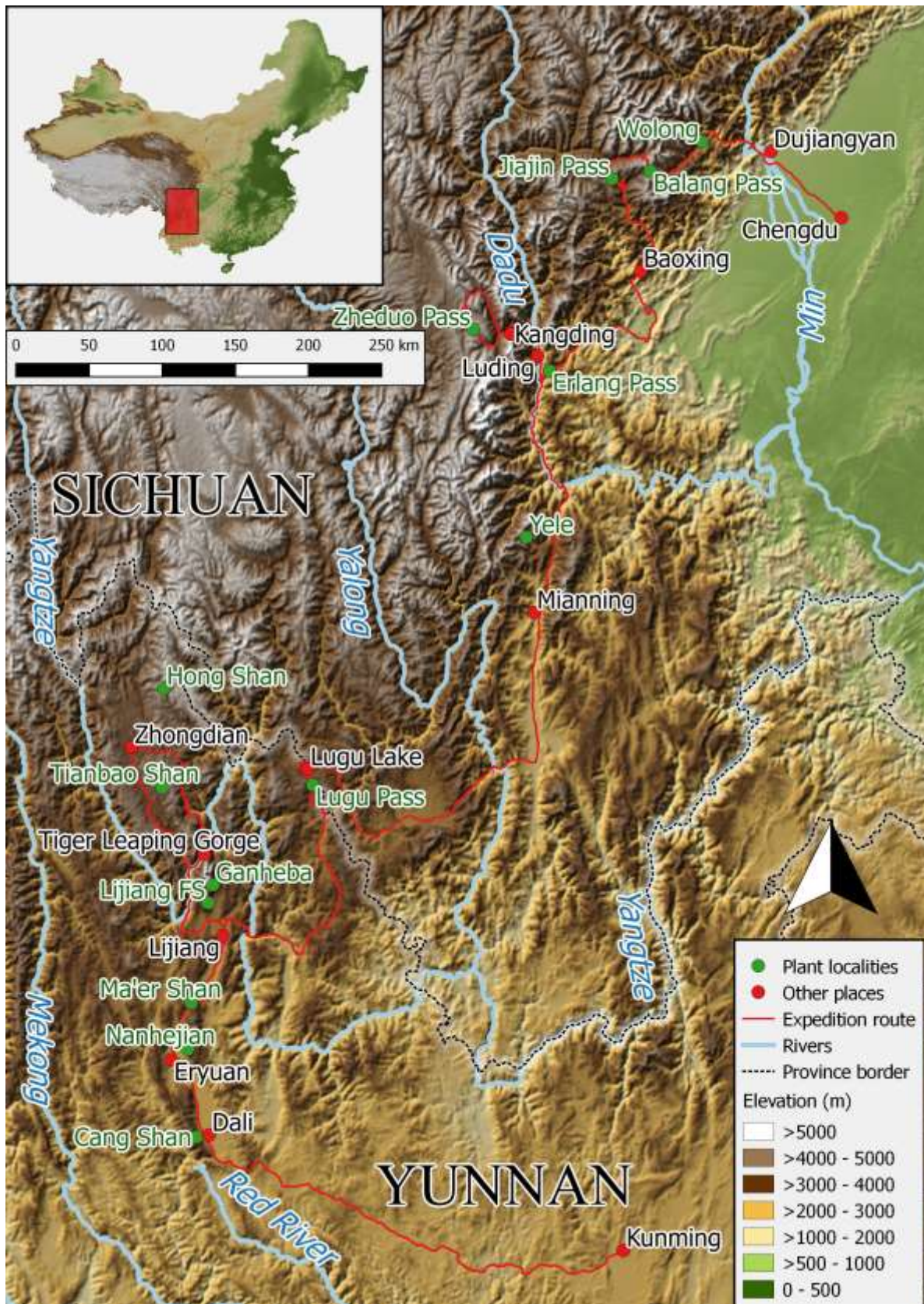
Western China is one of the most diverse regions in the world for temperate plants. The wide elevation ranges there, from less than 1000 metres to over 7000 metres and the large area of remote mountains mean that it has been an ideal environment for the creation and preservation of species. With new road infrastructure it is also becoming more accessible and, although development can be detrimental to wild areas, it did mean for us that we could explore larger areas within a shorter length of time. Naturally China has become a source of many of our garden plants, many of which we would identify on our visit, and is also a centre of diversity for many species of interest to the group including woody plants, *Primula* and *Meconopsis*.

Our three-week visit would start in Yunnan Province in Dali and continue North to Lijang and Zhongdian before turning North and East through Lugu to Yele and then Kangding in Sichuan Province. We then travelled over three mountain passes to arrive at Wolong. I travelled with four fellow younger horticulturists, a Chinese student as well as Stella and David Rankin. While we slightly younger horticulturists were novices to the area, Stella and David had visited many times before, exploring and documenting the plants in new areas and contributing to overall botanical knowledge. Stella and David had also made acquaintances with Chinese botanists from the region who they introduced to us on our expedition. The intention of introducing Chinese and British horticulturists was to provide a link between the two countries and improve conservation and knowledge. Though we had not all met each other previously the expedition has brought us together, indeed we parted as friends, and we will endeavour to keep in touch with each other throughout from now on.

It would be impossible to talk about all the themes that punctuated our expedition; the great many varieties of plants and conservation issues we came across impacted us greatly. In this report, I have chosen to talk about one of the botanical highlights we were to study; the genus *Meconopsis*.



**Meconopsis punicea on Jiajin Pass. Photo by David Rankin**



Map of the areas we visited. The expedition started from Kunming and returned from Chengdu.  
 Courtesy of Doctor Ed Shaw

## ***Meconopsis* in Yunnan and Sichuan Provinces, China**

*Meconopsis* are bold and dramatic and to any plant lover they deservedly have the reputation of being one of the most prized of garden plants. Not only that but they are plants which seem to imbue the wild and mysteriousness of Chinese mountains. During our three week visit to China in June 2016 we were to visit the area that has the greatest diversity of species in the wild. We saw many different taxa of varying colours and form and the more I saw them the more I came to appreciate and understand them in relation to the landscape. We travelled over large distances at varying elevations in both woodland and alpine habitats and saw a great variety of wonderful plants, but for me *Meconopsis* were the highlight of our visit.

The first *Meconopsis* experience we had was a search for *Meconopsis betonicifolia*, the first of the legendary 'blue poppies' to be discovered. We were in an area called Nanhejian, not far from the town of Eryuan on the road between Dali and Lijiang in Yunnan province. It was here in 1886 that the first specimens of this species were collected by the great French plant collector and priest Jean-Marie Delavay. The description of the species by Adrian Franchet was based on these specimens and some from a nearby area, but since then there have been few recordings of it in this area, the type location. The location description Delavay gave was imprecise and re-finding the plant in the wild would be difficult. However David and Stella were prepared for this challenge! Delavay recorded it as coming from 'Bois de San-tcha-ho au dessus de Mo-so-yn'. With some shrewd detective work and pestering of locals, who recognised the town name and a plant photo, we managed to find someone who was prepared to give up their morning to help us. We would drive to the location of the probable valley in the mountains to the East. Here, we believed that at a height of around 3000 metres there would be a wood where this legendary plant would be found.

While we did climb this valley, and experience the richness of the flora, we ultimately didn't have time to ascend to that height. However, by locating this valley we did make progress towards a potential future visit here, when we would have to start early and not be distracted. The valley did however distract us justifiably, with a treat of plants including *Primula blattariformis* and *P. bullata* var. *bullata* and var. *bracteata*, as well as other beauties such as *Corallodiscus*, *Daphne* and *Rhododendron decorum*, so we were not disappointed. We would save this search for another visit.



**David and Stella rediscovering the type location of *Meconopsis baileyi***



**Ganheba, the vast glacial valley leading to Jade Dragon Snow Mountain**

The first place where we actually found *Meconopsis* was in Ganheba, a vast glacial valley Northwest of Lijiang. This amazing place with imposing views leading to the dominant Jade Dragon Snow Mountain to the West is truly breath-taking. Here we saw *Meconopsis delavayi*, one of the many plants named after the famous plant hunter, growing next to the path into the valley, at an altitude of around 3200 m. With its simple purple-blue flowers growing in the open scrub this was a pretty introduction to the genus on our expedition. We also found the distinctive *Meconopsis rudis* which, though not in flower, could be identified by bristles on the leaves with red blotches at their base.



***Meconopsis delavayi*, named after the prolific 19th-century plant hunter, missionary and explorer Jean-Marie Delavay. Photo by Ed Shaw**

The next valley where we were to find *Meconopsis* was Southeast of Zhongdian (Shangri-La) in Yunnan province, near to Tian Bao Shan. This area is predominantly dominated by Tibetan people and in this remote and rural area they still wear the traditional dress.

At the altitude where the conifers of the forests petered out to limestone scree we found *Meconopsis pseudovenusta*, identifiable by its fleshy lobed leaves. Like most scree plants it has adapted to this location by having a long tap root, often stretching very deep under the stones. Sadly, it was not bearing its purple flowers when we saw it.

Close by we also found our first 'large yellow poppy' type of *Meconopsis*. These, in the series *Integrifoliae*, are characterised by being monocarpic, high alpine dwellers. They are dramatic, imposing and exciting. Growing between two logs at a height of around 3600 metres, where the plants were protected from the grazing of yaks, we found a small population of *Meconopsis sulphurea*. This plant is identifiable by its upright form and the nodding poise of its flowers which notably have a distinct slender style. It was concerning that perhaps due to overgrazing this was the only population we found in the valley.



***Meconopsis sulphurea*. Photo by Ed Shaw**

Contradictory to what one might think sometimes plants can thrive in the most disturbed places. The next day we visited a site just North of Zhongdian, on the slopes of Hong Shan, where we found a significant population of diverse plants thriving in very disturbed soils. These included six different species of *Primula* including *Primula szechuanica*, as well as *Meconopsis lijiangensis*; a tall yellow *Meconopsis* closely related to the previous species. All these plants were growing in a construction site for a reservoir, an area dumped full of rubble. Surprisingly and inspiring plants can sometimes flourish in the most unlikely of places!



***Meconopsis lijiangensis* growing in the rubble!**

Our next *Meconopsis* experience wouldn't be for another week but it was well worth the wait. After we had travelled North and East into Sichuan province we visited an isolated wooded valley leading into large mountains to the West. This was near to a village called Yele between Liangshan and Garze. The villagers' hay meadows were vibrant with the colours of flowering plants and butterflies, and higher in the valley this led into grazed and then pristine forest. It was in this forest, at around 3000 metres, that we saw what we were looking for – *Meconopsis wilsonii* subsp. *wilsonii*. What a magnificent treat! These tall woodland plants with light purple flowers were growing quite contentedly by bamboo at the fertile stream-side. Here they were growing in abundance at a height of up to two metres. From one viewpoint, it was possible to see dozens of them stretching up the valley side. We later learnt that there were three locations where our group had discovered the plant in this valley system, including one found by our driver, who had strolled less than a mile even from the car! We noted another unidentified *Meconopsis*, with slender leaves, tall stems and narrow seed pods, but this was not in flower. We also found *Meconopsis heterandra* in leaf but not in flower. This latter species is very local to this area and was only described in 2009.





**The wonderful *Meconopsis wilsonii* subsp. *wilsonii*.**

Further North, Zheduo Pass to the West of Kangding is on a main route to Western China. With its litter-strewn road and ugly pylons, disgusting toilets and loud, smoky vehicles the pass itself isn't pretty. However, at a height 4200 metres it is an amazing starting point for looking for alpine plants. We found *Meconopsis integrifolia* subsp. *integrifolia*, another with large, yellow flowers, growing between the rocks and the alpine sub-shrubs and in great profusion over the mountainside. Appearing through the mists and rain the plants looked amazing. We also found *Meconopsis henrici*, a vivid small blue flowerer abundantly contributing to the tapestry of flowering plants.



### Prayer flags at the top of Zheduo Pass

From now on, as we progressed further North, deeper within Sichuan, we would continue to see *Meconopsis* in increasing numbers and variety on all the alpine passes and the next time was an amazing day. We travelled North from Baoxing, at 1000 metres in height, to ascend the pass over Jiabin mountain, at 4114 metres. This was a day of gradual ascent through remote and wild valleys. For a long time we were surrounded by trees for as far as the eye could see, and were surprised and delighted to find a solitary lady selling delicious hot potatoes. When we stopped further on a flock of enormous Himalayan griffon vultures glided around to within perhaps 20 metres of us! Truly we felt the wonder of nature around us. Further up, above the tree line, there were alpine meadows with masses of spectacular wild flowers.

It was higher still that we found a most magical sight – *Meconopsis punicea*, the red flag poppy, hundreds of them, their flower heads swaying in the breeze. Somehow photos cannot do justice to the way they move. Here this species is at the Southern end of its range. They were mainly growing in large clumps, and we wonder whether this whole population consists of perennial plants. Amongst their number we also found the particularly rare white form, *Meconopsis punicea* forma *albiflora*. We were to see *Meconopsis punicea* on subsequent days but that first impression of them was the first time any of us had seen them flowering in the wild and will never be forgotten.



**Left hand photo *Meconopsis punicea* forma *albiflora*. Photo by David Rankin.**

**Right hand photo *Meconopsis punicea*. Photo by Ed Shaw.**

In this same area we found *Meconopsis integrifolia* again as well as *Meconopsis balangensis* var. *balangensis*, growing at the side of a boulder, tantalising in bud and yet to flower. The latter plant was covered with bristles on the leaves, rather like *Meconopsis rudis*. When we got going again we were just arriving at the 4100 metre summit when we noticed something very peculiar. Stopping to investigate we found what appeared to be a black *Meconopsis*! This gorgeous *Meconopsis*, about 60 cm in height, with drooping flowers, we found to be *Meconopsis balangensis* var. *atrata*. This a monocarpic plant with flowers which are perhaps more dark purple than black. In fact, some plants had much darker flowers than others, but that didn't take away any of the wonder. I find it remarkable that this variety was only described as recently as 2010, as it was growing so very obviously by the side of the road! It really makes one think about the possibility of unknown species that may be found further out in the less accessible parts of this region.



***Meconopsis balangensis* var. *atrata*.**

Nearby we found another example of the bright yellow *Meconopsis integrifolia*, this time squatter with hanging flower heads, looking very different to the plants we had seen previously. We aren't completely sure what this was. Perhaps there are morphological differences between the plants depending on the pass on which they are growing. If this is the case, then there could be many more varieties than are presently described. Looking at this particular plant, I could understand how *Meconopsis integrifolia* received its common name of lampshade poppy. There was also *Meconopsis pulchella*, a blue *Meconopsis*, found again later on the Balang pass. So this day ended with bold reds and yellows, blacks and blues, purples and whites – vibrant and wonderful colours of *Meconopsis* through the mists.



**Left hand photo a form of *Meconopsis integrifolia* on Jianjin Pass- a plant aptly known as the lampshade poppy. Right hand photo a Himalayan Griffon on the Pass**

Over the next couple of days, we explored the Balang pass (height 4500 metres) and again found *Meconopsis*, in even greater variety. The yellow-flowered one growing here in great numbers was *Meconopsis integrifolia* subsp. *souliei*. *Meconopsis punicea* was growing throughout and we also found *Meconopsis balangensis* var. *balangensis*, a squat, monocarpic plant with spiny leaves, bold blue flowers and yellow stamens, characteristically in a central cluster with an outer ring. Another stately blue-flowered plant we were to find on the mountains was *Meconopsis pulchella*, with its nodding, four-petalled flower posture. There was also one plant of a white form, which doesn't appear to have been reported before. *Meconopsis quintuplinervia* was the final *Meconopsis* that we were to identify. A close relative of *Meconopsis punicea*, this has narrow, nodding, mauve-blue flowers, and the few plants that we saw were much more robust than those that we know in cultivation. One would also hope to find the cross between the two, *Meconopsis* × *cookei*, in this area though alas we didn't.

## Overview

During our visit to Yunnan and Sichuan we have identified hundreds of plants, including 58 taxa of *Primula*. Here I have just focussed on *Meconopsis* but I think this can be justified by their relevance to the expedition. Indeed, this revealed a total of 19 taxa of *Meconopsis* of woodland and alpine forms, few of which I had previously seen in cultivation. It's impossible to choose a preferred variety; there were many bold and dramatic forms but equally as many smaller and apparently more delicate.

Most of the plants we found would be garden-worthy, and many are not currently in cultivation. It is the challenge of the horticulturist to find ways to grow these plants. Just as importantly, it is the inspiration of this expedition to demonstrate how they ought to be used to enhance garden design.

Surprisingly many of these plants have only been described within the past decade. It ought to whet the appetite of the plant explorer to see if there are more of these dramatic beauties which have not

yet been discovered. It is inspirational to be introducing more of these plants to science and the wider world or indeed to increase our understanding of the way that they grow.

This expedition has heightened my awareness of this genus and the landscapes in which it grows. Perhaps every expedition reveals one genus more than any other and, if so, for me this time it was *Meconopsis*. They were some of the finest plants on a great many fine days of botanising.

It seems limiting to talk about only one genus on an expedition where we discovered many hundreds of species of plant; more than our experienced guides had found during their many previous expeditions even! Though this report has concentrated on *Meconopsis* I hope that by describing them in relation to where they were found I have revealed a touch of the magic of those landscapes. We were immersed in a vast wilderness that plants contribute to, and in which in turn contributes to the creation of species of plant. The knowledge that we never found everything there was to be found on a mountain or in a valley, that we were always on the edge of discovery or rediscovery, or when the marvel of nature revealed itself to us; it was these times which were life affirming and unforgettable. The visit has broadened my knowledge of plants and the natural world and has given me new friends and unforgettable experiences. I am lucky to have been and am grateful to the Merlin Trust for the opportunity.



**Meconopsis wilsonii var wilsonii stretching into the distance**

**Photos of Identified *Meconopsis***



***Meconopsis delavayi***



***Meconopsis rudis***



***Meconopsis sulphurea***



***Meconopsis pseudovenusta***



***Meconopsis lijangensis***



***Meconopsis balangensis* var. *balangensis***



*Meconopsis wilsonii* var *wilsonii*



*Unidentified Meconopsis*



*Meconopsis cf. heterandra*



*Meconopsis integrifolia* subsp. *Integrifolia*



*Meconopsis henricii*



*Meconopsis punicea*





***Meconopsis punicea* forma *albiflora***



***Meconopsis balangensis* var. *atrata***



***Meconopsis integrifolia* subsp. *souliei***



***Meconopsis pulchella***



***Meconopsis pulchella* var. *albiflora***



***Meconopsis quintuplinerva***