

# The Call of the Wild

## by Margaret and David Thorne

(Written up by Evelyn Stevens)

Margaret and David Thorne's talk took the form of an excellent PowerPoint presentation. They had clearly given a lot of time and thought to prepare their presentation on all the *Meconopsis* species they have seen growing in the wild in the course of six trips to the Himalayas, Tibet and China since 2002. In her talk, Margaret showed numerous fine photographs and she discussed some of the complexities and problems they encountered in identifying the species. These points were well illustrated by close-up pictures of the anatomy of the plants. The *Meconopsis* photographs were interspersed with views and with composite slides of some of the other plants they found. An overall map showing the countries visited was provided by The Meconopsis Group from its web-site (prepared by Christine and Peter Taylor).

Margaret and David's six trips were an Everest trek in 2001, two to China – Sichuan in 2002 and Yunnan in 2006, a trek to Kangshung in Tibet in 2005, two back to back treks in the Himachal Pradesh in north west India in 2007 and a Jhomolhari trek in Bhutan in 2008.

1. Sagarmatha National Park, Khumbu, Nepal in May 2001, primarily for bird-watching The only *Meconopsis* seen on this trip were leaves of two species, *M. paniculata* and (probably) *M. grandis*. But they saw a number of rhododendrons in flower and also other plants including *Primula rotundiflora*, *Bergenia purpurascens*, *Thermopsis smithii*, *Thermopsis barbata*, *Arisaema griffithii*, *Gueldenstaedtia himalaica*, *Primula tanneri* ssp *nepalensis*, *Iris kemaonensis*, *Primula atrodentata* and *Corydalis govaniana*.

2. Sichuan in July 2002 This was an Alpine Gardening Society trip, led by John Mitchell, starting and finishing at Wolong (home of the giant panda research centre) in the Pitiao Valley. A map showed the three areas in which they saw *Meconopsis*: Balang Shan, Huanglongsi and Gonggan Len.

At 3700 masl (metre above sea level) towards the Balang Shan Pass they encountered their first *Meconopsis* species, in amongst lush meadow vegetation: *M. punicea* with unmistakable red flowers, *M. lancifolia*, either scapose or racemose, with purple flowers and with entire, sparsely bristly leaves, and *M. integrifolia* with yellow upright goblet-shaped flowers.

*M. rudis* was also seen. This and its near relatives present a confusing situation. They were puzzled that at higher altitude there were some quite tall, prickly blue flowered poppies which were certainly on the upper limit in size for *M. rudis* according to the Flora of China. Margaret also showed pictures of three other plants, one of which was classic *M. rudis*, but the others had features which made them wonder if the plants might be *racemosa* or *prattii*. In an attempt to sort out these species Margaret has painstakingly made a table of taxonomic features (as given by Chris Grey-Wilson and from the Flora of China, with the two not agreeing on all points). She stressed that it was necessary to make detailed note of all of these features (height, growth form, flower (form, petals, anthers, filaments, stigma, sepals, capsule), leaves (shape, colour, spots, bristles), altitude and distribution)) to facilitate identifying the species as seen and photographed in the wild.

The next area in which *Meconopsis* were encountered was at Deng Zhanzwa, Huanglongsi at 3900 masl. They found *M. punicea* (much finer forms than on the Balang Shan), and *M. henrici* (violet blue wide open flowers like the sails of a windmill, yellow or orange anthers, filaments dilated at the proximal end) in a short cropped turf habitat and *M. racemosa* (saucer-shaped flowers, long, parallel-edged leaves, no dark spots and with pale bristles, whitish anthers and stigma) on the screes.

The next area explored was the Gonggan Len, both on the east and west side. The *Meconopsis* found were *punicea*, *integrifolia*, *racemosa* and a new species, as yet as this time to be described, *M. sinomaculata* (the latter is closely related to *henrici*, both having filaments dilated towards the proximal end, but in *M. sinomaculata* the flowers are more cup-shaped and there is a deep maroon-purple zone at the base of the petals).

Other plants seen in flower included *Paraquilegia anemonoides*, *Cypripedium tibeticum*, *Primula dryadifolia*, *Primula polyneura*, *Saxifraga melanocentra* and *Pedicularis davidii* (?)

3. Yunnan in June 2006 This was another AGS trip. It was led by Harry Jans and John Mitchell and several other Meconopsis Group members were there as well – James Cobb, Evelyn Stevens and new members Jeanie Jones and Tim Lever. The places that Margaret talked about were the Gang Ho Ba, Napa Hai, Tian Chi, Da Xue Shan and Bai Ma Shan.

Two areas of the Gang Ho Ba, visited while staying in Lijiang, were explored. One was the lateral moraine and woodland on the edge of a u-shaped glacial valley full of lime rich glacial silt. On the second day, they went beyond this to higher areas. *M. delavayi* (with violet-blue pendant flowers on basal scapes, arising from a cluster of smooth spoon-shaped leaves) was found growing in the woodland and also on the lateral moraine in more open grassy areas.

*M. rudis* was found growing high up on the screes at the far end of the glacial valley on the second day at 3400 masl (near the lower end of its altitudinal range) The flowers were blue and very cupped, the leaves were broadly elliptical in basal rosettes, blue-green, glaucous and with toothed margins. They had purplish-black spots and very few scattered bristles, none of which were very short.

Other plants seen on the Gang Ho Ba were *Paris polyphylla*, *Cypripedium flavum*, *Cypripedium margaritaceum*, *Abies delavayi*, *Scutellaria* sp., *Primula forrestii* and *Lilium bakerianum* var *delavayi*.

The next area visited was further north, north of Zhongdian at Napa Hai where there is a botanical garden. It was difficult to decide which plants were introduced and which were native, but John Mitchell who has known the area for a long time, thinks they are mainly native. Problems with identifying *M. rudis*, *racemosa* and *prattii* in the field were illustrated by comparing three plants growing just a few feet apart in the quarry just outside the garden. Two were racemose with saucer-shaped flowers and with largely unspotted leaves and pale spines, meaning they should be *prattii* or *racemosa*. The third had dark spots on the leaves, indicating it was *M. rudis*, but growing at 3300 masl, the distribution was too low. In all three, the stigmas were white which the Flora of China indicates for *M. racemosa*, but this should not have dark spots. So a puzzle remained about these plants. A possible explanation, in this case, could be that hybridisation has occurred amongst a variety of species introduced into the adjacent botanic garden.

The next area visited was Tian Chi where amongst the roots of dead trees on the shores of the lake was found *M. pseudointegrifolia*. These were tall plants with pale yellow saucer-shaped, sideways-facing flowers with the style protruding beyond the boss of stamens, and the leaves had a fractured network of veins.

Further north still, the next area to be explored was the Da Xue Shan or Big Snow Mountain on the border between Yunnan and Sichuan. Here was found *M. integrifolia* which differed markedly from *M. pseudointegrifolia*, the plants being much shorter, with cup-shaped flowers and leaves with three prominent parallel veins. A variant of this was also found - very short plants with very deep yellow goblet-shaped flowers. Another species seen was *M. lancifolia* var. *lancifolia* which is scapose with solitary purple-blue flowers with 4-8 petals and undivided leaves.

The last area visited was the Bai Ma Shan which lies between the Yangtze and Mekong rivers. On the east side of the watershed was found *M. racemosa* (unspotted leaves) and *M. rudis* (dark spotted leaves), and a range of seedlings showing intermediate characteristics. Margaret's pictures again demonstrated the problems of being sure of the identities of the plants as seen growing in the wild. A final surprise here was finding *M. pseudointegrifolia* which is reported as having a more southerly distribution than *M. integrifolia*.

Other plants seen on the Bai Ma Shan included *Lilium lophophorum*, *Primula calliantha*, *Primula zambalensis*, *Saussurea medusa*, *Aster souliei* and *Paraquilegia anemonoides*.

4. Kangshung Trek, Tibet, 2005 This was another AGS trip, this time led by John and Hilary Birks and Harry Jans from 6<sup>th</sup> July – 4<sup>th</sup> August. The centre piece of this holiday was the trek. Margaret showed maps outlining the whole route taken ((Kathmandu (1200m) – Lhasa (3595m) – Rutok, Mi La 5050m) – Shigatse (3900m) – Dingri (4340m) - Kharta (3650m, and the starting point for the Kangshang trek) – Dingri - Nyalam (3785m) – Kathmandu). A more detailed map showed the route taken for the 8 day trek from Kharta, which included the Shao La summit pass at 4888m and the Langma La summit pass at 5347m.

They flew from Kathmandu at 1200 masl to Lhasa at 3595 masl. A day was spent in Lhasa sight-seeing and acclimatising to the change in altitude. They spent a day botanising on the Mi La, 130km north east of Lhasa near Rutok. They saw *M. horridula* at 5050 masl. (scapose habit, flowers: saucer-shaped, 8 deep blue petals, buds nodding, yellow stigma and stamens, petals same colour as petals; leaves: broad, undulate margins, straw coloured bristles with slight dark spots at bases). They also saw *M. integrifolia* (relatively short plant, very cup-shaped upright flower, not nodding, stunted-looking stigma). On this day, they recorded 151 species, 45 of which they saw only on this day – one was a new species of *Corydalis*, *C. milarepa*.

For the trek, they left Lhasa and travelled in Land Cruisers southwards towards Everest and Makalu on the Nepal border. Margaret showed a number of pictures of scenes along the way, including their baggage lorry stuck in a ditch. On the second day of the trek, between Dumba (4208m) and Tsho Chau La they found a new species of *Meconopsis*, subsequently named *M. tibetica*. This beautiful species is a member of the Discogyne section. Distinguishing characteristics of *M. tibetica* is that the stylar disc is pentagonal, the stem is leafy below the flowers, the petals are red and the flowers have distinct pedicels. The same day, they also found *M.*

*simplicifolia* in its more weedy form. A more robust form was found at Kagnai Meadow beside the Ragarsanba Glacier, a couple of days later by other members of the group. Characteristics of the species are 5 or more petals, no false whorl and flowers on basal scapes. *M. horridula* was another species seen, usually found above 4500 masl. The leaves were lanceolate to elliptic-oblongate or oblanceolate, sometimes with dark spots and with straw-coloured bristles, generally dark at the base. The flowers were solitary on basal scapes with 5-10 pale to deep blue petals, the anthers were yellow, the stigma white or yellow and the filaments the same colour as the petals, only darker. They found two white flowered plants, one with dark spots on the leaves and one without.

A final map showed the route they hope to take in 2009, starting from the same camp-site, but following a parallel route through Cogarbo Valley, where in 1921, C.K. Howard-Bury reported finding “a wonderful *Meconopsis* of deep claret colour”, which they believe to be the first sighting of *M. tibetica*, although not recognised as a new species at the time.

Other plants seen included: *Chionocharis hookeri*, *Soroseris erysimoides*, *Androsace delavayi*, *Primula klattii*, *Gentiana emodi*, *Primula wollastonii*, *Corydalis latiflora*, *Oreosolen wattii*, *Primula tenella*, and *Cremanthodium oblongatum*.

5. Himachal Pradesh, India, in 2007 For this trip, Margaret and David and six others who had also been to Tibet in 2005, were greatly indebted to Margaret and Henry Taylor who have explored the area extensively, for much prior help and information – loan of books, sketch maps, plant lists, articles, and advice on when and where to go.

They flew into Delhi and then by road to Shimla where they met Prem Sarahan who organised their trip which started with a week trekking the Baspa valley, visiting the Rupin pass (4625 masl) and Nalgan pass (4530 masl) and ending at Sangla (2725 masl). The only species of *Meconopsis* in the Himachal Pradesh is *M. aculeata*, quite closely related to the “horridula” group. They found it above 3000 masl. It occupies niches, which in other places, would be occupied with several species! At lower altitudes it was taller and it was more compact at higher altitudes. They found it growing by a river, but mainly found it on rock ledges. Margaret showed a number of attractive pictures of the species. It has very lobed and dissected leaves, yellow stigma on younger flowers, white on older ones, orange anthers, filaments the same or darker than the petals which are sky blue.

From the Baspa Valley they went north to Manali, over the Rhotang Pass and then did a 4 day trek on the far side to Manali over the Hampta Pass. They found *M. aculeata* again, normally blue, but they found a few which were pink.

Other plants seen included: *Saussurea simpsoniana*, *Lilium nanum*, *Cremanthodium ellisii*, *Primula reidii*, *Gentiana carinata*, *Cyananthus lobatus*, *Leontopodium* sp and *Androsace* sp.

6. Bhutan in July 2008 – the Jhomolhari Trek This was the same area visited by an AGS party in 2002. A map showed the route from Paro in west Bhutan over the Nyile La to Linzshi in upper Mo Chhu valley, over Yeli La and down the Thimpu valley.

Seven species of *Meconopsis* were listed as having been seen during the 2002 AGS trip. There was confusion about whether *M. grandis* occurs in west Bhutan – some people on the 2002 trip said that it was there, some that it was not. From the herbarium material from west Bhutan examined by Margaret and David, on the basis that *M. grandis* has flowers with 4 petals and a false whorl, there is no *M. grandis* in west Bhutan. The FOC records it in the Yale La in Upper Mo Chhu, but Margaret and David only found *M. simplicifolia*. They found the latter on 4 days of the trek. It occurs either in one of two forms (a “better” and a “weedier” one) or maybe it is just very variable. Perhaps some were monocarpic and some perennial. They plan to visit some of the same clumps this year (2009), so hope to obtain more information on this. The two forms had filaments the same colour as the petals (a feature of *M. simplicifolia*), not white as expected from *M. grandis*. Margaret showed several close-up pictures – of stamens and filaments, seed capsule, leaves and leaf rosette) of *M. simplicifolia* to illustrate her points.

*M. paniculata* was the first *Meconopsis* to be seen in Bhutan – on the Cheli La and they saw it on 5 other days as well. Most flowers had 4 creamy yellow petals, and possessed dark purple stigmas, characteristic of this species and unlike *M. napaulensis* which has a green stigma. It was 2 metre tall and had very divided leaves which is a characteristic of *M. napaulensis*. The Flora of Bhutan says that *M. napaulensis* is rare in Bhutan, but that it does occur on the Cheli La – with red, purple or blue flowers.

The next species shown was *M. sinuata* which they saw on one day only. This is a rather insignificant member of the “horridula” group of species. It can be distinguished from *M. primulina* as the flower has four petals (*primulina* has five), and there are leaves on the stems (which *M. primulina* never has).

They spent three days walking through Bhutan’s native woodland, which has remained intact, before they emerged above the tree-line into meadows. They camped at Jangothang for two nights from where they explored the Tsophu glacial lakes. On the screes above the lakes at about 4400 masl they found the most beautiful blue form of *M. discigera*, a member of the Discogyne section. This has the characteristic disc on top of the capsule and the filaments are deep blue. Unlike the 2002 AGS trip, they failed to find *M bella* here as well.

They also found *M horridula* on the day they found *M. discigera* – at 3890 masl. They also found it on five other days at between 4200 and 5000 masl. They were usually a wonderful electric blue, but they also found a pink one. The flowers were scapose, this being characteristic of higher altitude plants. But at lower altitudes the plants appeared to combine being scapose (a single flower on a basal stem) and racemose (a central stem with a number of flowers each with its own stem arising from it). The latter might be a secondary characteristic caused by the scapes fusing, rather than being true racemes. Margaret showed a surprising picture of a high altitude plant in which the stigma was bright purple (not white) – and suggested that it might be a new species “*M. thornianus*”!!

The last species to be shown was *M. primulina*. This was the *Meconopsis* they saw most frequently, on 8 days, and it was also the smallest. It grew in the open, beside the path and was relatively abundant. It has small, simple leaves in a basal rosette. The flowers are borne singly at the top of leafless stems from 30 cm – 100cm tall (i.e. it is scapose). The flowers were mostly deep blue, but one pink one was seen. The most notable feature was the long style, and it was this that enabled it to be identified in the herbarium back in Edinburgh. The reason for difficulty in identifying it from the keys is that they all say that this species has leaves on the lower part of the stem. This was not apparent from the living specimens that Margaret and David saw. One picture contrasted *M. primulina* and *M. simplicifolia* growing near each other. The former was always growing in the open and is relatively short, while *M. simplicifolia* was much taller and growing in the middle of shrubs. One composite slide showed variation in the length of the style (did elongation take place with ageing, or remain the same through all stages of flowering?). In some flowers the styles were white, in others black.

Margaret said they are fortunate to be returning to Bhutan this year (2009) as they are running a trip for the AGS and she showed a composite slide showing some of the beautiful plants, apart from *Meconopsis*, that will be seen. They are also returning to Tibet later in the summer of 2009. Hopefully, they will tell us of their latest adventures in due course!

Margaret finished her talk showing a slide outlining hopes for the future. She said that it is easier than ever before to see *Meconopsis* in the wild, to research the distribution of known species and perhaps to find more new ones. She pointed out that there is an enormous amount to be learnt from observation and photographs. She also suggested that back-up support can be provided by others, through literature, herbarium and laboratory research and she drew attention the role of The Meconopsis Group as an appropriate body for facilitating such a co-ordinated approach.

This PowerPoint presentation is also available to members with Internet access in pdf form on The Meconopsis Group web-site: [www.meconopsis.org](http://www.meconopsis.org) - see Members’ area. This means that members with Internet access can see the pictures as well as read an accompanying account of the talk. We are grateful to Peter Taylor for his help in preparing the pdf versions of the pictures and of the text. I have been responsible for limited editing of the original text. This material, in 2 pdf documents, should provide an invaluable resource for *Meconopsis* enthusiasts, especially those planning their own trips See also the section on the web-site: <http://www.meconopsis.org/pages/portraits2.html#specieswild>. Another recent development is James Cobb’s launching of his complementary web-site: <http://www.meconopsisworld.co.uk> that has similar aims.