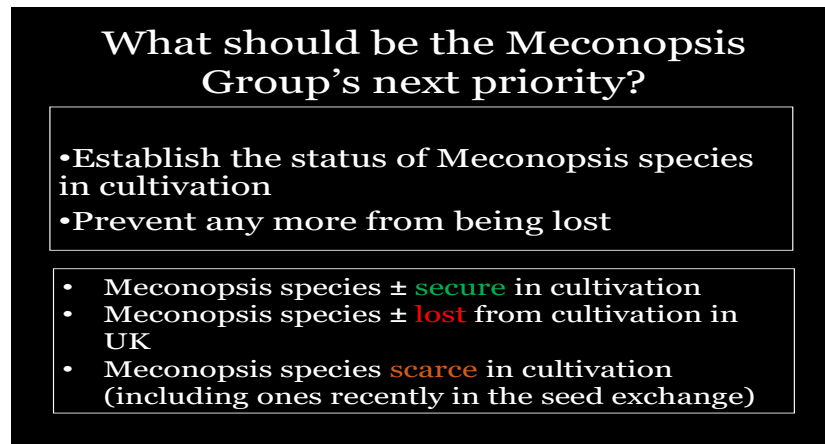


Meconopsis Group Digital Herbarium

Talk by Margaret Thorne at RBGE October 17th 2015

At the last Meconopsis Group meeting you may remember that I spoke about the possible future direction of the Group. I summarised the considerable achievements of the Group to date, outlined various objectives which we could go on to pursue and suggested that our next priority should be to establish the status of Meconopsis species in cultivation and prevent any more from being lost.

Slide 1



What should be the Meconopsis Group's next priority?

- Establish the status of Meconopsis species in cultivation
- Prevent any more from being lost

- Meconopsis species ± **secure** in cultivation
- Meconopsis species ± **lost** from cultivation in UK
- Meconopsis species **scarce** in cultivation (including ones recently in the seed exchange)

I gave lists of species ± **secure**, ± **lost** and **scarce** in cultivation, based on the results from a questionnaire which had previously been circulated to members. Then I asked you all to take photographs of the Meconopsis species in your garden, particularly those on the scarce or lost list. These will form the basis of the Group's 'Digital Herbarium' and help us to establish exactly which species and subspecies we have. Margaret asked the members to indicate who had been photographing Meconopsis in their gardens this year.

Slide 2 showed the list of species that Margaret thought had been lost from cultivation. (See archives of March 2015 meeting) She asked if anyone thought that they had any of the species on the species on this list?

Well, I am very pleased to say that in the summer I was shown 2 pots in which seeds of *Meconopsis robusta* had been sown and one of the two was full of young seedlings, so I do hope that will result in the return of this species into cultivation, as I have already moved it to the scarce in cultivation list.

Meconopsis species scarce in cultivation

* Recently in seed exchange

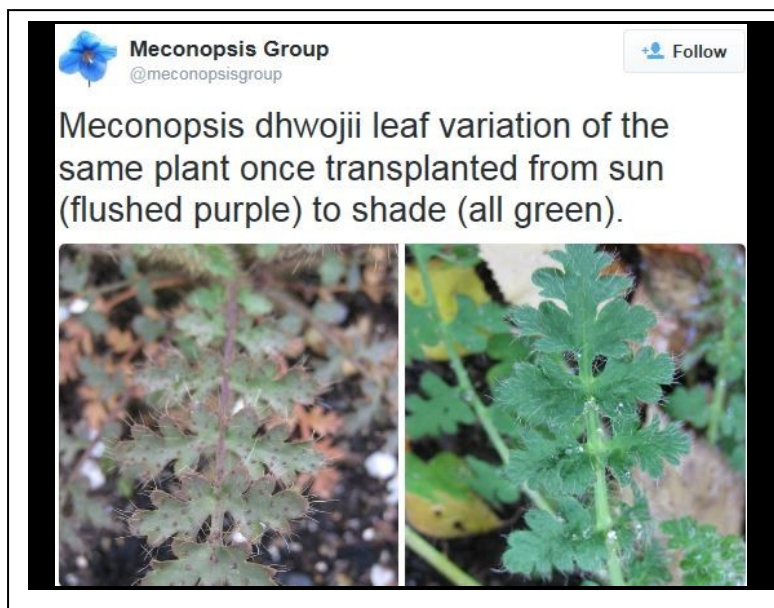
- | | |
|---|---|
| <ul style="list-style-type: none">• aculeata *• baileyi pratensis• betonicifolia• delavayi *• dhwojii *• gracilipes• grandis orientalis*• henrici *• integrifolia *• napaulensis * | <ul style="list-style-type: none">• robusta• rudis *• simplicifolia simplicifolia• staintonii *• sulphurea sulphurea*• tibetica *• wallichii wallichii *• wilsonii australis ?• wilsonii orientalis• wilsonii wilsonii * |
|---|---|

I suggested that the Meconopsis species which are scarce in cultivation should be a priority for us to establish what we have. We need one or more members of the Group to champion each of these species, much as Jim Cobb has done with *Meconopsis punicea*, to really make an effort to make plants available so we can be sure that several people have populations from which they are generating surplus plants and/or seeds.

A newsletter will be circulated after this meeting giving details of how and when you can send in your photographs to contribute to the Digital Herbarium. Don't forget that you don't need to be growing Meconopsis in your own garden, you can also contribute photos taken in any garden open to the public



One of the examples I used was this one, swiftly identified by Alan Oatway as *Meconopsis dhwojii*. It demonstrates the minimum number of key features of each plant which you must photograph for the purposes of correct identification: the whole plant, flower detail, leaf detail and seed head detail. Time and experimentation will tell if we need to add to this list, but it is certainly a good idea to take as many pictures as you can. Ian suggested photographing the seeds and Pat, the early spring foliage. But as we are going to do this herbarium by email, we will probably take these four as the first stage.



I was intrigued by Al's post on Twitter about *Meconopsis dhwojii*, and here it is, just in case you didn't see it. Observations like this are always valuable. I was particularly interested that there don't appear to be any black spots on the leaves when they were in the shade. As this is a major feature in

distinguishing *M. dhwojii* from other species, it is obviously very significant.

M. grandis subsp orientalis



Does anybody think they have this subspecies? L&S 600 (popularly known as GS600) was certainly this subspecies as was Betty's Dream poppy and a collection made by Peter Cox in 2004 on the Nagaland Arunachal Pradesh Expedition or NAPE . The infertile clone 'Keillour' is very similar to this particular individual plant, but for the sake of completeness, the digital record would not be complete without noting that the flower colour can also be deep red.

I personally think that it is sufficiently distinct to be a separate species from *Meconopsis grandis grandis*. They are certainly geographically separated and I see no possibility of there being any gene flow between the two subspecies. It would be very interesting to experiment with crossing the two subspecies to see if they produced fertile offspring



I took these photographs in Tibet in 2009 and 2010 and while preparing this talk I decided to see what Kit had to say about these populations in his monograph. I was somewhat surprised that he does not mention them at all and he gives the distribution of *Meconopsis grandis subspecies grandis* as East Nepal and Sikkim. These plants have shorter and broader leaves than *Meconopsis grandis* ES 104 which has now been given the name 'Himal Sky' and as it was collected by Ron McBeath it must have come from East Nepal.



Margaret then asked if anyone grew *Meconopsis simplicifolia*? Is it perennial? These are plants from the Chele La in western Bhutan and are now named *Meconopsis simplicifolia subspecies simplicifolia*



The slide above shows *Meconopsis simplicifolia* subspecies *grandiflora* from Nyile La which is further east but still in west Bhutan. At the extremes these plants are distinct but unlike the situation with *Meconopsis grandis grandis* and *orientalis* which as far as I am aware have no intermediates, the two subspecies of *M. simplicifolia* seem to grade into one another.



This year David and I were in Sikkim and we came across a lot of plants of *Meconopsis simplicifolia* of both subspecies but none at all of *Meconopsis grandis*. In western Sikkim we found subspecies *M. simplicifolia* and as there were plenty of dead flower stems from the previous year in each clump we found, it was certainly perennial.



This is a comparison between the *Meconopsis simplicifolia subsp. simplicifolia* plants and a Primula.

As you can see the Meconopsis is a miniature form, some only a couple of inches tall. Wouldn't this make an amazing garden plant, especially as it is perennial?

The Primula is what is known as *Primula obliqua* but which is in fact completely different from *P. obliqua* in eastern Sikkim and western Bhutan



Meconopsis simplicifolia subsp. simplicifolia, west Sikkim, miniature perennial form



Meconopsis simplicifolia subsp. grandiflora, north Sikkim



In northern Sikkim all the plants were *Meconopsis simplicifolia* subspecies *grandiflora* and wherever we found a seed pod from last year, it was growing out of a dead plant. So this subspecies is clearly monocarpic.



M. simplicifolia subsp grandiflora, north Sikkim, purple flowered form

We even found this purple form, but they were predominantly blue

The first species of *Meconopsis* we found on this year's trip when we were trekking along the border ridge between western Sikkim and eastern Nepal, was *M. wallichii* subspecies *fusco-purpurea* and it was growing in close proximity to *Meconopsis paniculata*. Although we have seen *fusco-purpurea* before, in Bhutan, this was the first time we had seen it in flower, since it is one of the latest species to flower



Meconopsis wallichii var *fusco-purpurea*, 3242m



Meconopsis wallichii var *wallichii*, west Sikkim, 3460m

By chance this was also the first year in which *Meconopsis wallichii* has flowered in our garden at Craigurd.



Meconopsis wallichii at Craigurd





Meconopsis wallichii
at Craigiurd

Unfortunately the flower colour was not quite as good as those in the wild, so it would be good to try to get back to some of the clearer colour forms by careful seed selection



Meconopsis wallichii
seed capsules in
← cultivation and
the wild ↓

I was quite surprised how different the seed capsules of the cultivated plants were to those in the wild. The latter were more like *M. paniculata*, so perhaps there was some crossing between the species, though there was no evidence of this at the time, as we said on the video.

(NB. It was not possible to include the video for this archive report).

We always like to find at least one species of *Meconopsis* which is new to us, as well as some old friends, and this year it was *Meconopsis discigera* on the way up to the Geochela at 474m.

This is actually higher than the altitude recorded for it in the Flora of Bhutan: 3600-4100m. AGS group found it at 4775m in 1983.



Meconopsis discigera, 4374m
below the Goeche La

The talk ended with a photograph of Kanchenjunga.

