

# *Meconopsis* at Holehird

## by Pat Murphy

(text very kindly prepared by Pat Murphy and lightly edited by Norma McDowall)  
Some diagrams have been copied from the Powerpoint presentation.

### Introduction

First of all this is a joint effort by Bob (Pearce), Alan and myself.

I'm going to say a little about the history of Holehird, then about the different *Meconopsis* we grow at Holehird. The main part will be a report on the progress of the demonstration bed.

### Lakeland Horticultural Society

The Lakeland Horticultural Society was formed just over 40 years ago in 1969, with the aim of establishing a centre for horticulture in the Lake District.

It leased two acres of overgrown ground above Holehird Mansion from Westmorland County Council, chosen because of the impressive view of the Langdale Pikes but more importantly because an established rock garden was already present.

First of all, the rockery had to be cleared of scrub to reveal the specimen shrubs and the trees beyond which included; two Chilean Pines, a Blue Fir, many Acer cultivars and a *Malus kansuensis*. Many of which had been planted at the beginning of the century. Other trees of note were the *Davidia involucrata* and the Liriodendron.

A sketch map (1969 – 1974) shows the main features of the early garden. The LHS did not lease the walled garden which was a tree nursery. Gradually the garden expanded to the 17½ acres that it covers today.

As part of its objectives to promote and develop the Science, Practice and Art of Horticulture, with special reference to the conditions of the Lake District, the LHS holds three National collections of Astilbe, Hydrangeas and Polystichum ferns.

It has also run several 'Which' trials for various plants, including phlox, digitalis, and agapanthus. A trial for David Austin roses has been running for ten years. Having a demonstration bed for *Meconopsis* is part of a long tradition at Holehird.

### History of *Meconopsis* at Holehird.

The early history of *Meconopsis* at Holehird is unclear. We know that in 1913 William Groves, who lived at Holehird House, Dr Hough of White Craggs, Ambleside and two others<sup>1</sup> put up £100 towards a plant hunting expedition to China led by Reginald Farrer. William Purdom, from Brathay, went with him. The sponsors were entitled to one tenth of the seed returned to England. In his book 'A Wesmorland Rock Garden' Dr Hough includes *Meconopsis* in the list of seeds he received. It is probable that these seeds would have been brought to Holehird as well. If they were we do not know what they were or whether the Groves or their gardeners succeeded in growing them.

In 1960, William Groves' son describes *Meconopsis* growing in the border next to a path leading up to the rock garden.<sup>2</sup> A leaflet produced by Westmorland Council in 1967 also lists *Meconopsis betonicifolia* growing in the same place. In 1977 in the Lakeland Gardener, the journal of the LHS, there are references to *Meconopsis* being planted under the Oak<sup>3</sup>. These may have been some of the plants noted in 1960 or they may have been brought to Holehird in the 70's by an LHS member. When a bed was made around the Oak the plants were moved to the front of the Rock Garden, and then again in 1989<sup>4</sup> to the back of the Magnolia Bed into a damper, more shaded position. We also know that *M. napaulensis* was present around the Gunnera Pool before it was redeveloped.

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<sup>1</sup> The others were Anne Marshall and Miss Ripley

<sup>2</sup> A History of the Gardens at Holehird compiled by Henry Leigh Groves

<sup>3</sup> *Lakeland Gardener* Vol ? No ? 1977 Autumn p8 para 4

<sup>4</sup> *Lakeland Gardener* Vol 1X No V1 Spring 1991 p4

The earliest photo we have found so far of *Meconopsis* at Holehird, was taken in 1999. These plants are in the front of the Magnolia Bed and are probably *M.*'Lingholm' *Meconopsis* continued to be planted at Holehird from the early to mid 1990s and included *M. napaulensis*, *M. horridula*, as well as *M.* 'Lingholm'.

We continue to grow the rosette forming monocarpic *Meconopsis*, this group being planted about 2003. In the winter we have to protect them from the wet with a variety of frames which keep the water off but allow ventilation, otherwise this is the result. We have yellow leaved and silver leaved forms with a variety of flower colours. These are some grown in the last two years..

We also grow *Meconopsis* x *cookei* and *M* x *cookei* 'Old Rose', *M. quintuplinerva* and *M. baileyi*, while *M. cambrica* grows throughout the wilder parts of the garden. In 2008 we started growing *M.* 'Jimmy Bayne', *M* 'Bobby Masterton' and *M.* 'Crewdson Hybrid'

In 2009 we prepared the demonstration beds and planted the first of the 22 cultivars and species.

### **The Demonstration Beds.**

The beds used for demonstrating the *Meconopsis* are in the paddock. (Map) They have previously been used for the cultivation of Primula, *Meconopsis* 'Lingholm' and small Rhododendrons on a rotational basis of 2 to 3 years. Over the last 10 years or so the beds have been given an annual dressing of organic matter. This has been in the form of either home-made compost (from shredded garden material and lawn cuttings), 2-3 year old leaf-mould (mixed leaves) or Just Naturally. This is (a commercial peat free soil conditioner containing composted bark, straw and animal manure. The organic material has been dug in at up to a spades depth before planting. At planting time Fish Blood and Bone fertilizer has been added at the rate of 70 to 140 gm /sq metre (2-4 handfuls). The pH of the soil is 6.5 to 7.0.

The beds are protected with wind breaks in the form of a clipped conifer hedge and netting erected on a timber frame. The *Meconopsis* plants in the demonstration have been planted alongside a path for easy observation by the public. The site is in one of the highest parts of the garden and can be cold, and a little windy, but has been successfully used for growing *M.*'Lingholm' for years.

Before showing how the plants fared, I'm going to show some of the weather conditions they have endured. The information is from the LHS weather station.

### **Soil Temperature**

The soil temperatures in the winter months were not exceptional compared to recent years and followed a normal pattern. Readings per month

Evidence:

|           |       |           |       |         |      |
|-----------|-------|-----------|-------|---------|------|
| March '06 | -1.02 | March '07 | 1.64  | Dec.'07 | 0.93 |
| Feb. '08  | 1.46  | Feb '09   | -1.56 | Feb'10  | 1.80 |

There was of course a thick covering of snow in December and January which persisted into February. This again was unusual compared to recent years.

### **Air Temperature.**

The air temperature also followed a normal pattern. Readings per month.

Evidence: Minimum air temperature.

|         |       |         |       |         |       |        |       |
|---------|-------|---------|-------|---------|-------|--------|-------|
| Jan '06 | -6.92 | Feb'07  | -4.52 | Dec '07 | -4.56 | Feb'08 | -4.16 |
| Jan'09  | -7.26 | Jan '10 | -6.22 |         |       |        |       |

### **Sunlight.**

The graph shows total hours of sunshine per month. In December the pyranometer was recording a reading below the threshold of 180 Watts/ sq.m which defines the boundary between cloudy and shine. December was a dull month with continuous cloud cover. The graph follows a normal trend

### **Rainfall.**

Rainfall in 2009 was close to the historic mean except in November when it was the highest recorded since records began (Manual records are from 1904 to 1961 The automatic weather station has recorded rainfall every 30 minutes from 2004 to Oct 2010•)The early months of spring 2010 were much drier than normal, not the best conditions for growing *Meconopsis*. Again in July the rainfall reached the highest reading ever recorded.

### **Soil Samples.**

We also looked at the soil's pH and NPK content. Random soil samples were taken in an organised way in March and October. The pH was analysed using a BDH kit for all samples while the NPK content was found for selected samples using a Westminster Soil Test Kit. (This only records whether the NPK content of the soil is low, medium or high)

On both occasions the soil pH was within the range 6.5 to 7.0, the N,P, K content was low.

**Explanation.**- Used by plants

Leached by rain

The moisture levels in the soil were generally high as was the organic content of the samples. As the soil has been nurtured over the years this isn't surprising. There was no significant differences between the two beds although the organic level for Bed 13 was slightly higher. Bed 13 had generally received more attention over the years.

In October we dug a pit in one corner of bed 14 so we could take samples from the top soil and the A,B and C horizons. We chose an area to which we had applied less fertiliser over the years. The organic matter was lower for these samples and may represent the basal organic level for the beds.

### **Planting.**

Most of the plants for the demonstration were planted in July 2009, One *M.* 'Jimmy Bayne' was planted in October 2009. Other plants that we collected at this meeting last year were too small to plant out. We kept them in a frame and planted them in April this year. The plants have been fed with a soluble plant food ( either Miracle –Gro or Phostrogen) and kept moist if necessary using an automatic spray system which operates during the night for a given period. The plants are weeded and slug pellets used if necessary

### **The Plants.**

We tried to take as many photos as we could to record the progress of the plants. I'm going to show some representative samples.

Photos were taken in order, Label, Front plant, Middle Plant Back Plant. Plants were designated a, b, c. (a being at the front by the path)

We decided we would try to indicate the height of the plants when taking photos. For the emerging leaves, there is a 4 inch label next to them although we didn't photograph all of the emerging leaves. A translucent ruler was used next but it was difficult to focus on the ruler as well as the plant.

Next we used a 40cm high white plant label marked at 5cm intervals. This worked and next year it will be kept vertical!

As the plants grew higher we used a 110cm high broom handle, marked at 10cm intervals. This worked well but needs two people, one to hold the handle and one to take the photos.

The next photos show the differences in the plants growth between those planted in July 2009 and those planted in April 2010. All of the plants planted in 2009 produced flowers. Only *M.* 'Bobby Masterton' which

was planted this year produced flowers. We allowed one to flower but removed the flower buds from the other plants because they seemed too small to be flowering. Plant c of *M.* 'Jimmy Bayne' flowered.

The way each cultivar flowered is shown in the next few slides.

A summary of the results is shown. As the plants grew they formed clumps. The front clump is clump a and so on. (Results have already been sent to the RHS and to Evelyn).

Those that flowered produced masses of flowers. *M.* 'P.C. Abildgaard' produced the most flowers and showed the strongest growth. However it may have flowered too much as clump c fell down possibly due to wind. 'Slieve Donard' also clumped up well and produced lots of flowers, as did 'Barney's Blue' 'Marit' and 'Crarae'.

There have been a few losses. One plant of *M.* 'Ascreavie' was lost early in 2010, possibly due to the snow, but has been replaced. Some others may have been lost or died down early, but we won't know until next spring. We believe we have lost *M. grandis* c, *M.* 'Mop-head' as well as *M.* 'P.C. Abilgaard' c. The rest of the plants are still in leaf but dying down. (Latest observation 17<sup>th</sup> November.)

When the plants are growing strongly again next year we intend to split some of the clumps and to plant them further back in the same rows so that each plant has more room.

We will also add more slow release fertiliser and a mulch of leaf mould or Just Naturally..

We are looking forward to seeing all of the plants flowering next year and will continue to keep a photographic record.

As this is the first year we have grown them we realise we have made some omissions.

We intend to keep more systematic records next year e.g

Dates when the first leaves emerge

Dates when flowers appear etc

### **Leaves.**

Having a lot of different cultivars growing together has given us an opportunity to find out what we can about them. We had not seen most of them before and cannot just look at a cultivar and identify it immediately. We have therefore looked at some features especially ones we could measure to see if there were any noticeable differences we could discover.

We first looked at leaves measuring the length and width before flowering and after flowering. We found the ratio of length to width (hoping this might be constant) and presented the results in a graph.

### **Limitations**

All leaves were from a limited number of plants. Only three of each cultivar or species.

A small sample size ranging from 30 to 52 leaves per group

However from the graph comparing the George Sherriff Group with *M. grandis*, *M. grandis* ES104 is significantly different.

### **Seed Pods.**

The seed pods on the different plants are noticeably different so again we measured length and width and found the length/width ratio.

The resulting graph doesn't show any clear cut differences between the cultivars although *M. baileyi* is distinct. (*M. grandis* ES 104 isn't included because the seed pods were taken)

### **Limitations.**

Again the pods were from a limited number of plants. The pods were at different stages of maturity.

### **Acknowledgements.**

Many LHS members have contributed as shown here.

.....Finally a photo of Bed 14 in full flower [*really beautiful - you need to visit -N*]