



**BULB LOG 7.....18<sup>th</sup> February 2015**







People from all over are celebrating Galanthus, the Snowdrops. Seeing them gathering together at meetings, buying or swapping plants, listening to talks, all far away from Aberdeen, it came to me that **'I will have a drop of that'** is the perfect title for a talk on the wee white flowers. While I do make a lot of fun of those with 'drop fever' it is obvious even as you approach our front door that we also have a fondness for snowdrops. The foliage of Corydalis 'Craigton Blue' makes a suitable ground cover for the Galanthus to push through.



When you get round to the back garden you can see just how many drops we actually have – they are everywhere.





People go crazy collecting all the many variations that we see as well as the many that are not different as if they are snow(drop)blind.

Some are clearly different and can be formed into groups as their offspring share similar features.

I do admit to being mildly infected by white fever as even we grow some carefully labelled in pots in frames but as soon as I plant them in the garden the label is thrown away. If they are truly different then I should be able to identify them and if they do not stand out sufficiently from the crowd then perhaps they do not deserve a name.

I am not going to name drop here I will challenge you to put the names to the ones I am showing should you desire or just enjoy them for their beauty.



**Snow drops in the frames.**





Whether they are in shade or full sun the bright white of the flowers makes snowdrops stand out.



**Short drops in the sunshine.**



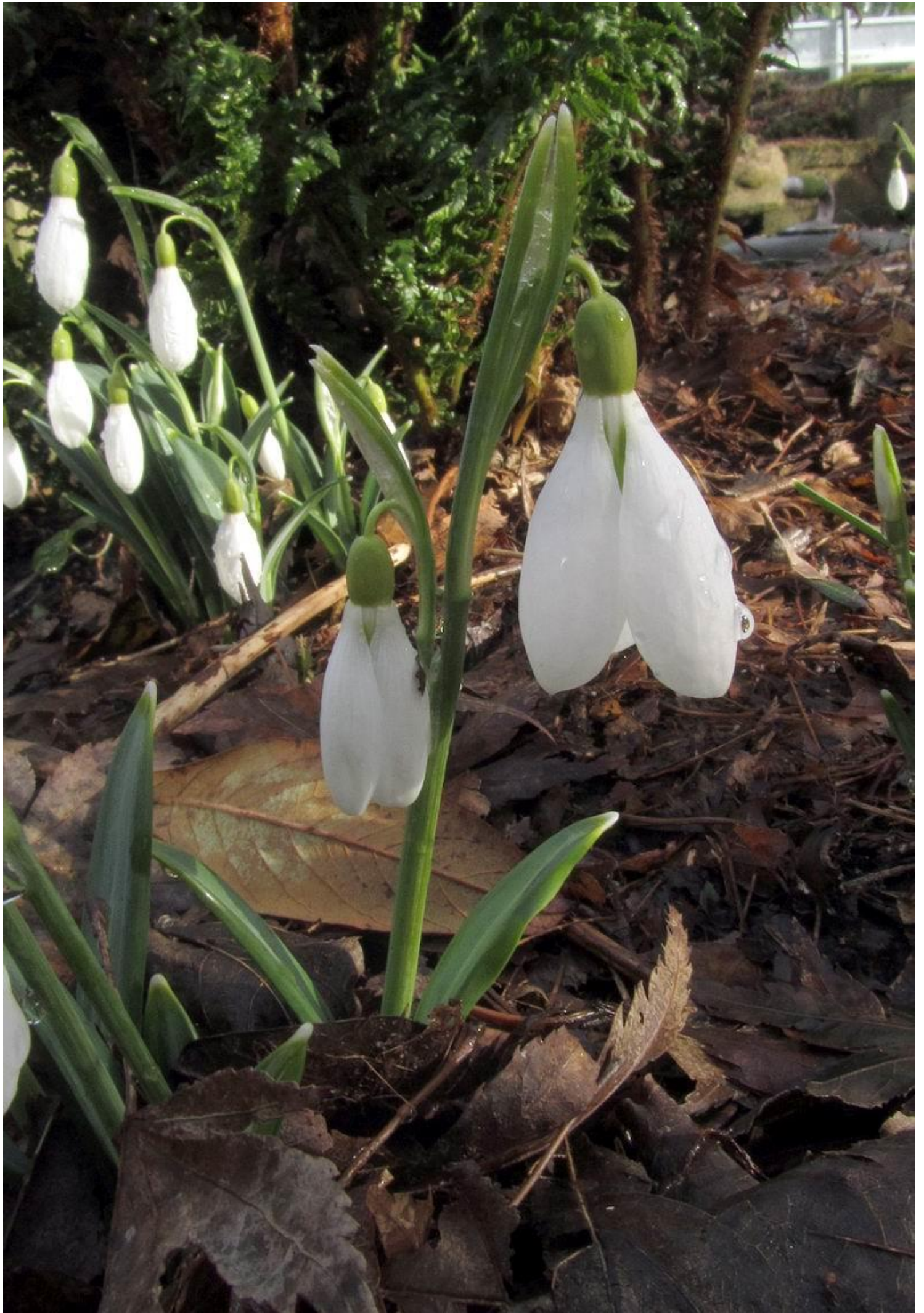


The inner green markings on this group remind me of a pair of scissors. It is almost certainly a hybrid involving *Galanthus plicatus*. As well as the mark it often has twin scapes producing two flowers from a bulb and when the bulbs are fully mature it has two flowers per scape, see the picture below.

I have been gradually trying to build this one up by constantly dividing it and now have a few groups of it around the garden with two flowers per stem.

This year I will twin scale it and hope that this method of increasing bulbs retains its best feature.









Here a group come through the foliage of *Corydalis flexuosa*.



Short stems and giant flowers distinguish this group.





A clump with poculiform flowers – although these are not always fully developed poculiform.



A robust and vigorous form opens its flowers in some rare warm air thanks to the sunshine.





Looking at the many variations has become an addiction for some while others also have the desire to collect as many different ones as they can find – well, ones with different names that is – and huge prices have been paid for a single bulb.



Some do stand out and are easily identified.





Green markings on the outside petals are very popular and there are many variations.



Perhaps even more sought after are the ones with a yellow ovary and markings . Of course buying is not the only way to get some different snowdrops, if you start raising them from seed you can get your very own variations. You will need to get some seed or build an interesting small collection of the distinct forms that appeal to your taste then start to cross pollinate these collecting and sowing the seed.





### Pollen

The pollen is easily collected by holding a sheet of paper under a mature flower then tapping it on the ovary which will shake pollen out of the pepper pot like anthers – this can then be transferred onto the stigma of another flower. The anthers of Galanthus are quite fascinating - they do not split open along their length like many other bulbs allowing insects to rub against the pollen. Snow drops are perfectly adapted to flowering in the cold wet early part of the year their flowers hang down, the outer three segments open and close with the temperature exposing the inner part when the air warms enough. The shorter inner three segments protect the style and stamens while also providing a platform for bees to cling on to. The pollen is a dry dust-like powder and the anther splits from the tip, which when vibrated by the bee or wind will allow a sprinkle of pollen out, just like a pepper pot.



The seeds are best sown fresh, dry stored seed should be soaked before being sown 3 to 5 cms deep in a pot. If you grow them well, feeding them regularly with dilute liquid feeds, you could get the first flowers in three years.





Dryad Gold 5 and 8

One person that does this very well is Anne Wright of [Dryad Nursery](#) who is perhaps best known for her wonderful Narcissus hybrids but she also breeds some very good Galanthus. Among the recent selections Anne has raised are the Dryad Gold series from which I am lucky enough to have DG5 and DG8.



Dryad Gold 5 and 8

There is an obvious difference in the size of these two I think this difference in size represents the true nature of the plants – I will find out in the next few years.



## Galanthus flower

How closely do you look at your drops?

As well as looking for variations in the marks it is worth studying the flower in some detail.

Starting from the top you see the outer three petals.

The inner three are much thicker than the outers and generally also shorter.

These all surround a cluster of six anthers – the male part of the flower.

The style projects into the flower from the front of the ovary which is inferior – that is, it is not contained within the flower.

These are the parts of a normal flower.







### **Ovary**

Cutting a section through the ovary reveals the immature seed (gametes) awaiting fertilisation from pollen growing down the tube from the stigma.



### **Anthers**

The anthers are also very interesting as they form a pleated tube around the pollen - when ripe a hole opens at the tip allowing pollen to drop out.





What goes on in the double flowers is also interesting. Here are two stages of this mutation on the left a partial and not very attractive form and a perfect multiplex form on the right.



Starting from the outside the imperfect double, above left, has three outers surrounding four typical inners, the next layer contains four petaloid stamens where the stamen is fused to a petal-like mutation. The next layer, shown still attached to the flower, has three longer inner structures which I show in more detail below, then six stamens – two were partially fused to the stigma.





Here I show the whole sequence including a section of the ovary which contains the embryo seed so it is fertile.





A similar sequence of the perfect double reveals the outer three petals followed by five rows of inners then three further rows where there is some fusing with poorly formed stamens.



There is no style on and no gametes in the ovary so this flower has no functioning female parts it may produce some fertile pollen from the partial stamens, which can be seen nestled towards the centre of the flower on the left, but this plant cannot form seed – it is an evolutionary dead end.





Comparison of the two 'double' forms shows how fascinating these plants can be and part of the reason so many find them addictive.....