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# Bulb Log Diary

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ISSN 2514-6114

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BULB LOG 04.....24<sup>th</sup> January 2018





### ***Eranthis hyemalis***

We have escaped the snow that covers much of the country but for the last three days we have had a deep frost with night time temperatures down to  $-6^{\circ}\text{C}$ . As I sit in centrally heated comfort I am watching and in awe of our two smallest birds. the Wren and the Goldcrest, which live in our garden, the former poking around in the leaf litter while the latter hunts through the bonsai trees for food. The trees, shrubs and various rock works that provide the structure of our garden also ensure there is a wide range of habitats for the birds as well as the plants.

The temperature of the cobble covered sand bed when I took this picture was  $-4.7^{\circ}\text{C}$  and you can see that the snowdrop stems have fallen flat to the ground and in the top right hand corner of the bed you can see the first of the *Eranthis hyemalis* to emerge and shown on the cover.



The wee birds have to be actively foraging for food during the freezing conditions to keep them alive but what is it that triggers the *Eranthis* and some other plants to grow so early?



Despite the very short daylight hours, the sun (when it is out) is still low in the sky, and the freezing temperatures *Eranthis hyemalis* seed is germinating – it does have the advantage that there is little in the way of competition as most of the other plants are still in winter hibernation.



Seeds that lay unnoticed since being shed last spring become noticeable as the emerging root searching for the soft ground extends. All these plants have resulted from self-sown seeds which in favourable conditions will flower in their third year.



The ***Eranthis hyemalis*** at the most advanced stage of growth sits under the shelter of trees and Rhododendrons where the ground temperature is mostly a few degrees less cold than the open garden.



***Eranthis pinnatifida*** is also emerging through the gravel covered pots in an open frame. These plants have proven hardy, having survived growing in unprotected pots, so this year I intend to plant this pot of flowering sized seedlings into the new bed I made beside the pond.

More advanced in growth is this form of *Eranthis pinnatifida* which is growing in the same open frame – the one thing I do need to protect them from, even at this time of year, is slugs looking for a winter snack.



*Arum italicum* 'Marmoratum' is another plant whose leaves grow in the winter and are perfectly hardy. A common strategy of these plants is to withdraw water in sub-zero temperatures which causes them to collapse. This can be alarming the first time you observe it but you quickly learn that as the temperature rises the leaves are rehydrated and stand up again. *Eranthis* however remain upright and seem unaffected by the freezing conditions.



**Cyclamen coum** leaves and stems flop in the freezing conditions but this flower, covered in ice crystals, remains open.



Cyclamen coum leaves and stems collapse in freezing conditions returning to normal growth as the frost lifts.



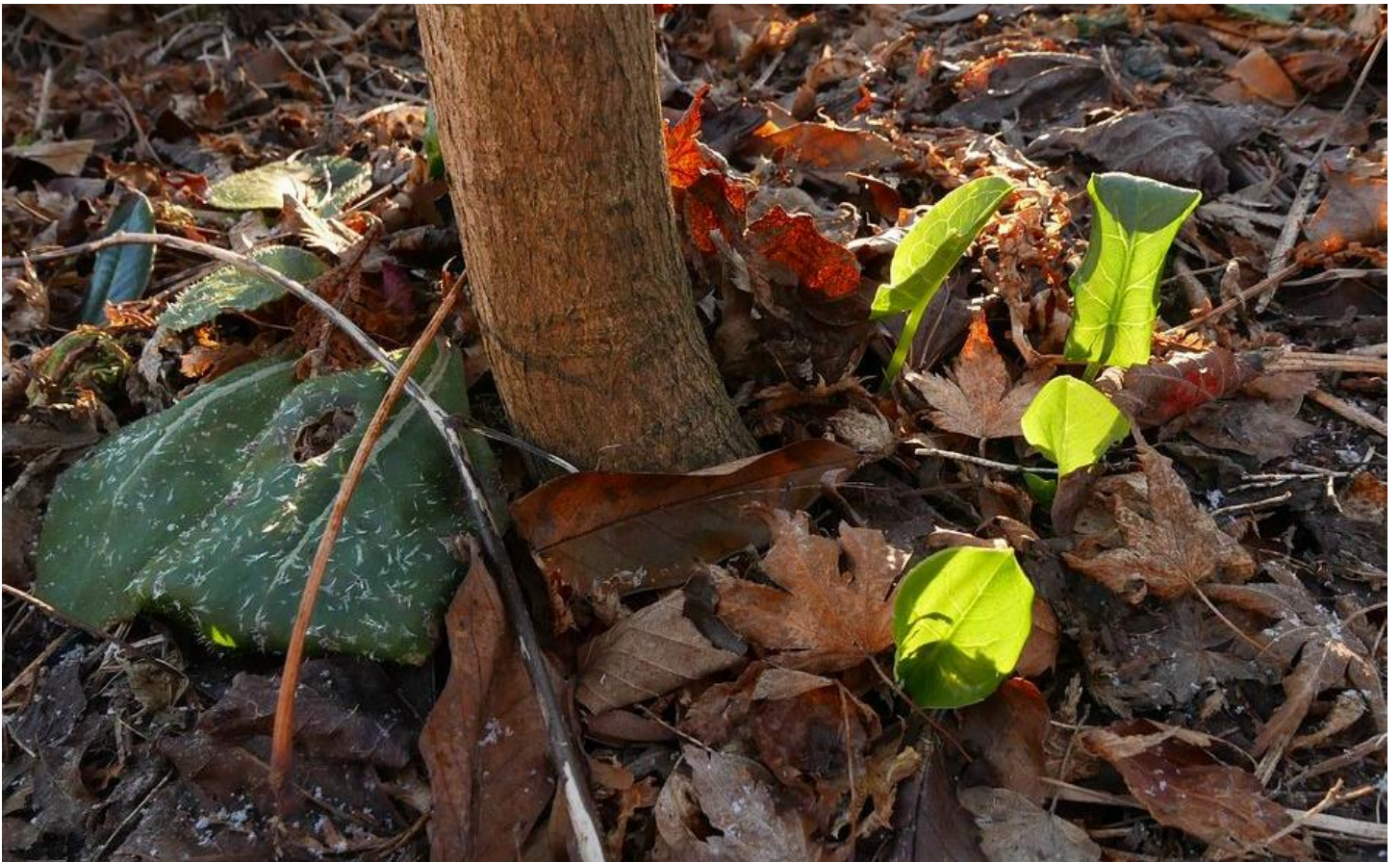
The leaves of *Corydalis* 'Craigton Blue', which emerge in the autumn, also collapse in freezing conditions.



At  $-4.2^{\circ}\text{C}$  the leaves are lying limp on the ground, four hours later a new weather front has come in and the temperature has risen to  $+0.7$  and the leaves start to stand up again.



The garden is there to enjoy every day of the year: no matter what the weather I can always find something to interest or please me – such as this frozen vignette with mosses, ferns, Saxifragas and Cyclamen.



A group of Arum leaves are momentarily turned into a stained glass window by a shaft of sunlight – you have to be quick to capture these fleeting effects on camera.





As the temperature rises above freezing these Helleborus growths slowly rise up from their frozen prostrate position.



Reticulata Iris buds are also pushing through the frozen ground awaiting their opportunity to bloom.



It is interesting to observe that some *Galanthus* also adopt the strategy of collapsing in the frost (above 'Glenorma') while others at the same temperatures remain upright. It may be they have a different temperature threshold or they could have a different strategy to cope with freezing conditions.





***Galanthus woronowii*** in front of a stone feature which once stood in the open but is now deep under the growth of the Rhodendrons – can you spot it in the next two pictures?



The clear blue skies mean we get to see the sunshine but it also results in the deep frosts that we had. On the left you can see a typical reaction of many rhododendrons to the freezing air - that is they roll their leaves up as a protection - different species roll at different temperatures and some do not do it at all.



**Rhododendron ciliatum** does not roll its leaves when it is freezing nor does its hybrid Rhododendron Cilpinense .

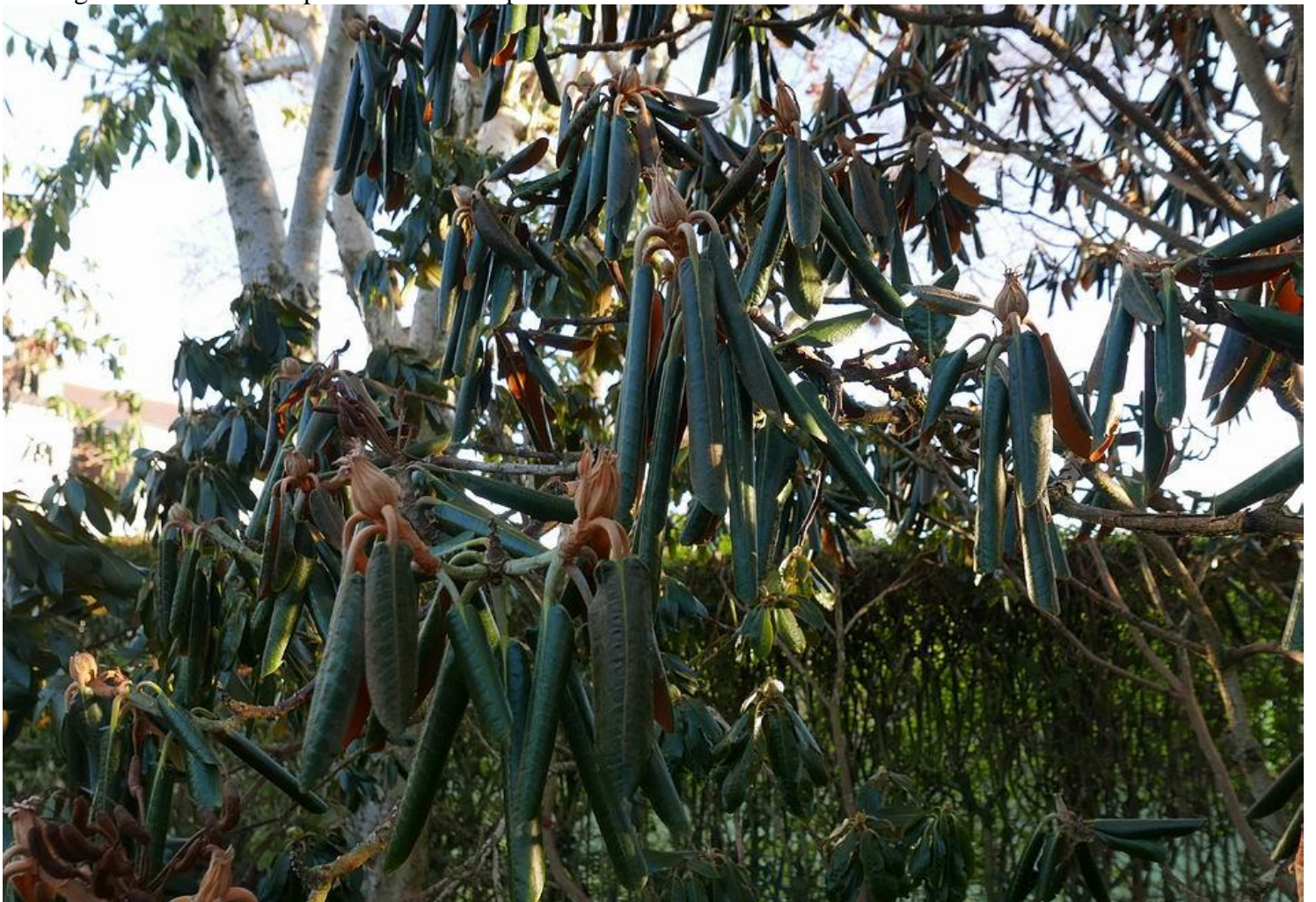


**Rhododendron cilpinense**  
(*R. ciliatum* x.  
*R. moupinense*).

Both of these plants have beautiful large pale pink scented flowers which appear very early in the year – their buds are already expanding, as a result the flowers are often damaged by frost especially the earliest to flower, Rhododendron cilpinense.



The day after I took this picture of **Rhododendron rex subsp. fictolacteum** the temperature had dropped to -4C causing the leaves to roll up as shown in the picture below.





**Rhododendron faberi** on the left does not roll at this temperature, **Rhododendron rex subsp. fictolacteum** does.



While it is not so obvious the naturally narrow leaves of **Rhododendron makinoi** do become even narrower and hang down in these freezing conditions.



Two more examples are the hanging rolled leaves of *Rhododendron auriculatum*, above, while those of *Rhododendron pachysanthum* below, do not flinch.



***Rhododendron pachysanthum***





Some views of the frozen garden illustrate the areas of light and shade cast by the low sun, the area at the south of the garden, where I am standing, to take this picture gets no sunshine at all at this time of year.





View looking north towards the house.



Pines and Rhododendrons at the south end of the garden are in constant shade during the winter months.



Galanthus with Celmisia and Colchicum leaves in the background.



I have not yet managed to bring myself to remove the beautiful fronds of this **Polystichum setiferum** – there are no very early bulbs directly under its growths so I can enjoy them for another month before I cut them off to allow uninhibited new growth.

The warming cables buried in the sand plunges of the bulb houses have come on for spells during these freezing nights but only enough to prevent the sand freezing solid all the way through. I want to protect the bulbs from deep freezing, not to heat them – as you can see the surface temperature is -2.4C.



More from the bulb houses and the garden in this rapidly changing season next week .....