A year in the life of a *Magnolia x soulangeana* tree

1. December
Dormant terminal winter bud

2. March
Developing flower bud

3. April
Bloom opening

4. April
Bloom opening to saucer shape

5. April
Fruit stage 1
Aggregate fruit beginning to develop

6. July
Fruit stage 2
Fruitlets within some follicles beginning to develop.

7. August
Fruit stage 3
Pronounced development within some follicles

8. September
Fruit stage 4
Aggregate fruit maturing and turning pink

9. October
Fruit stage 5
Mature aggregate fruit, showing fruitlets emerging from follicles

10. October
Terminal Leaf Bud

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The Magnoliaceae family is now on the endangered list with some species on the ‘red list’. *Magnolia x soulangeana* is a hybrid of *Magnolia denudata* and *Magnolia lilliflora* bred by Soulange-Bodin in 1820. It is a hardy species of temperate latitudes, for example, between southern Norway and northern Italy.

The largest painting shows the stages in the life cycle of a mature *Magnolia x soulangeana* growing near the south coast of England. The tree does not normally show all stages at one time, although an occasional bloom will appear over the summer.

The stages in the picture vary from an early spring bud to winter’s latent terminal bud that will develop into one of the next year’s flowers.

As the bud develops into a mature bloom, it attracts beetles that pollinate the flowers. The beetles shelter in the centre of the flower feeding on the pollen that sticks to them. As the beetles move from flower to flower, they carry that pollen with them, so fertilising fresh flowers as they go. This process is a relic of the Magnolia family’s history – the plants having evolved at least 100 million years ago and before bees were available to fertilise the flowers.

Once fertilised, the receptacle with surrounding ovaries starts to develop into an aggregate fruit. Many of these fall before reaching maturity. Ovaries containing fertilised ovules swell as the seeds develop and enlarge. Usually only some of the ovules are fertilised, so that the developing seeds distort the aggregate fruit, which changes from green through pink to red as it matures.

During summer and autumn the fruiting body ripens and when ready, splits to reveal and release the red seeds. At about the same time the tree sheds its old, now yellowing and brown leaves.

So, this life cycle ends – or starts, with preparation for winter and the next year’s blooms.