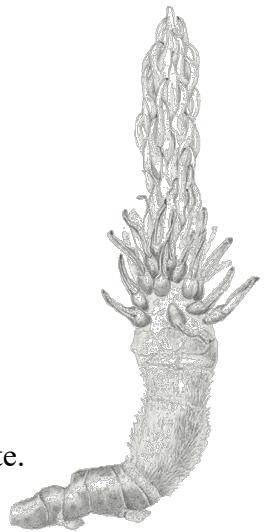


## ***Magnolia x soulangeana* – A bloom and dissection**



### **I) A Bloom (early April) – *natural size*.**

The tepals open to show the plant's main reproductive organs. One of the tepals falls open in a typical manner, giving the plant its common name of 'Saucer Magnolia'. The reproductive organs are in an early stage of development as the pistils attached to the central supporting receptacle are still soft and complete. The stamens at the base are tightly packed and remain unopened.

### **II) Longitudinal section of Bloom – *natural size***

Cut in two the tepals are seen to be fairly thick, particularly at their base. The tepals, pistils and stamens are arranged in a spiral manner around the central receptacle. One can almost see the spiral effect as the ovaries seem to be diagonal. They are as yet unfertilised.

### **III) Anterior view immature stamen – *x 8 natural size***

The bottom of the stamen, pink and swollen, attaches to the lower part of the receptacle stalk. The top part of the stamen is white or very pale pink, with a darker pink central stripe. This upper part will open longitudinally to release pollen

### **IV) Stamen releasing pollen – *x 4 natural size***

- Side view. The upper parts of the stamen have opened, releasing the pollen which is visible clinging to the opened edges.
- Anterior view of the stamen. The upper parts, previously closed, have opened and curled back.

### **V) Reproductive organs at a later stage – *x 2 natural size***

The stigma tips are beginning to shrivel as some of the ovaries have been fertilised. The pollen-bearing stamens have done their job too, they are now shrivelling and dropping off from the base of the receptacle. Note the angular scars left by the tepals and the tiny spiralling scars from the stamens. These remain throughout the development of the aggregate fruit.

### **VI) Shrivelling stamen – *x 8 natural size***

The stamen has released its pollen, starts to twist and shrivel, dropping off from the bloom's stalk.

### **VII) Longitudinal section of the receptacle and ovaries – *x 2 natural size***

The continuation of the stem supporting the reproductive parts is the receptacle and can be seen through the centre of the section. All the stamens have fallen off. All but one shrivelled stigma has fallen off and the life of the fertilised fruit has begun. Some ovaries appear to contain fertilised ovules and may continue to develop into fruitlets. However, even at this stage many aggregate fruits will fall from the tree.