Plant common name: **Rosemary**

Latin name: *Rosemarinus officinalis*

Common family name: Dead-nettle

Scientific family name: **Lamiaceae**

Plant height: dense bush up to 2 m

Flowering period: April – June but blooms till the end of summer in my garden

Provides: pollen and nectar

Utilised by: Honey bees, carder bees, larger solitary bees such as *Anthophora plumipes* (hairy- footed flower bee). The latter are not found in Scotland but are in other parts of UK. Most members of this flower family have long flower tubes which determines who visits insect-wise

Honey: Yes, not in UK sadly, but large crops may be obtained in the south of France, Spain and Greece. Mount Hymettus, near Athens, is famous for its delicious spicy flavoured Hymettus honey

**Rosemary**

Rosemary is a Mediterranean perennial herb that prefers chalky dry soil but is adaptable enough to thrive in most UK soils provided moist soils are well drained. Interestingly, Rosemary grown on chalky soils is shorter but more aromatic than those grown in other habitats. Its name, like the snowdrop’s, is linked to the virgin Mary. Rosemary’s blue colour resembles Mary’s garments. Its other names include: old man; rose, or dew of the sea (derived from Latin) and southern wood.

*Officinalis* refers to its usefulness to mankind for apothecary and culinary use. It has been used as an antibacterial and antifungal agent, and its pungent aroma is redolent of Sunday lamb roasts. It has been known of, and used, as a memory stimulant for a thousand years. In 2017 there was a run on essential oil of Rosemary in the UK shops as students bought it up around exam time. It has also been used in research into Alzheimer’s disease.

This plant is popular amongst gardeners and many differently coloured hybrids are produced. The light blue flowered Rosemary is very beautiful and highly sought after by honey bees and bumble bees in my garden. The off-white putty coloured pollen provides a different source of protein, essential to the variety required in a well-balanced healthy bee diet, although I am uncertain of its protein value. However, plants within the same families often have similar protein content (1). Lavender, from the same family, and also very popular with honey bees, provides a surprisingly **low** level of **crude protein at 20%.** The highest levels of protein are found in Scorpionweed (*Phacelia tanacetifolia*) Lupin (*Lupinus angustifolius*) and Vipers bugloss (*Echium vulgare*)—30, 34 and 35% respectively (2).

Unlike many of its square stemmed lamiaceae relatives, Rosemary has a round stem. The aromatic opposite leaves are 1.5-5cm long, linear, narrow and parallel-sided, with a white underside. Like many lamiaceae, Rosemary flowers are two-lipped with a pale mauve/blue colour and dark spots on the lower lip to serve as landing guides to honey bees. There are only two anthers and stamens and a large dark purple stigma hanging over them. The bees brush against the anthers as they push into the flower throat to access the nectaries and pick up pollen which falls onto the next flower stigma it lands on.

**Pollen** under the microscope (x 600 magnification)

Colour: 0ff-white putty coloured

Shape: irregularly round and some boat shaped

Size: medium 30-50µm, this specimen 35 µm

Exine features: spiky ornamentation around the grain, medium exine with no rods seen

Surface: interesting net surface

Number of apertures: 6

Aperture type: 6 furrows very clearly seen

Other features: pretty pollen grain resembling a sea urchin