# CBKA ONE DAY SEMINAR – Saturday 7 March 2020 Storey's Field Centre, Eddington, Cambridge, CB3 1AA

### "Bees, Forage, Pollination and Sustainability"

**Norman Carreck** (Carreck Consultancy Ltd.,Shipley, West Sussex, RH13 8GD, and Laboratory of Apiculture and Social Insects, University of Sussex BN1 9QG)

### "Planting for bee forage"

Bees co-evolved with flowering plants to use nectar and pollen as their only food source. Changes in land use since the Second World War have, however, reduced both the quantity and diversity of forage available for bees. Norman will discuss experiments over the last 25 years to test forage mixtures for bees in farmland, and more recent work at Sussex University on garden plants for bees. The COLOSS CSI Pollen project involved beekeepers in many European countries regularly trapping pollen to determine the diversity of forage sources throughout the season and in different locations. This has led to the current INSIGNIA project (<a href="https://www.insignia-bee.eu/">https://www.insignia-bee.eu/</a>) that aims to relate bee exposure to pesticides with the crops on which they are foraging.

Hamish Symington (Department of Plant Sciences, University of Cambridge CB2 3EA)

## "The science of pollination"

Pollination is essential for the survival of many plants, and 35% of global food production by volume comes from crops that depend on animal pollination to some extent. This talk will look at the 'why' and 'how' of pollination: what's the point of it, and how does it actually work? Additionally, the talk will examine the strategies used by plants to attract pollinators – look and feel, smell, colours and more. Finally, research being undertaken in the Department of Plant Sciences at Cambridge will be discussed, which uses painstaking measurements and bumblebee experiments with model flowers to help improve the pollination of crop plants and, thus, our ability to produce food.

Laura Jones (National Botanic Garden of Wales, Llanarthne, Carmarthenshire SA32 8HN)

### "Investigating the foraging preferences of honeybees using DNA techniques"

The National Botanic Garden of Wales researches the foraging preferences of pollinating insects, which is vital to providing appropriate floral resources and mitigate pollinator declines. To track which plants pollinators are visiting, the research uses pollen DNA from honey or pollen loads to identify the plants. The results from the Laura 's PhD research will be presented, where the foraging of honeybees was investigated using hives based in the diverse landscape of the National Botanic Garden of Wales, as well as using honey samples from beekeepers across the UK.

Roger Patterson (Wisborough Green Beekeepers Association, West Sussex)

# "Sustainable Bees and Queens for Everyone"

There is growing support for locally produced bees and queens to discourage imports. This talk will show that, by using simple, well-tried techniques and little or no extra equipment, it is easy to produce bees and queens from local stocks at the same time as producing honey. It will also help Bee Keepers Associations to produce bees and queens for their members.