Central Association of Bee-keepers
"Bringing Science to the Beekeeper"

Autumn Conference
16-18th November 2018
Programme

Friday 16th November

16.00 onward	Registration
19.30 – 20:30	Buffet Dinner in the Orchard Restaurant
20:30 – 21:45	Ben Woodcock – "Neonicotinoids and bees"

Saturday 17th November

09:30 – 10:45	Walaa Elsayeh – "B-vitamins and bees"
10:45 – 11:15	Coffee
11:15 – 12:30	Dylan Elen– Title to be advised
12.:30	Lunch
13:45 – 15:00	Nicola Simcock – "Food for thought: the honey bee as a model animal to study physiology"
15:00 – 15:30	Tea
15:30 – 16:45	Jessica Knapp – "Mechanisms and Management of crop pollination"
18:30	Reception drinks in Parson's Folly followed by
19:00	Dinner in Redwood

Sunday 18th November

09:30 – 10:45	Anthony Williams – Results of recent COLOSS winter loss surveys
10:45 – 11:30	Coffee
11:30 – 12:45	Siobhan Maderson – "Expert and Experiential Knowledge in Pollinator Policy: The Perspectives of Beekeepers"
12:45	Closing Remarks

Central Association of Bee-Keepers Autumn Conference 2018
Speakers and Lecture profiles

Ben Woodcock

My principal research interests revolve around reconciling intensive agricultural management with the maintenance and enhancement of native biodiversity and the ecosystem services that they provide. While a lot of my work is of an applied conservation nature, linked to the development of agri-environment schemes (the UK policy mechanism for extensifying agricultural management), I am interested in the fundamental mechanisms that underpin community ecology in these systems.

"**Neonicotinoids and bees**"

Worldwide neonicotinoids are one of the most widely used pesticides. However, their frequent use on flowering crops (like oilseed rape) has raised concerns over risks to honey bees and wild bees as the chemical is often found in the pollen and nectar of crops that they feed on. While many studies have identified negative effects on honey bees and wild bees they have often been criticized for not reflecting what we see under normal agricultural conditions. This talk presents the findings of the largest study undertaken under 'real world' conditions to assess the effects of neonicotinoids on bees and discusses the implications of the use of these pesticides in the UK and Europe.

Walaa Elsayeh

I am a full time PhD student at Newcastle University. My research focuses on the role of b-vitamins in honey bees diet. I am also a visiting scholar at Arizona State University. I started my career as an entomologist when I graduated from Faculty of Science, South Valley University, in the South of Egypt in 2008. My interest in bees started when I took insects behaviour course and learned about bees behaviour. After completing my bachelor I got my permanent job as demonstrator in 2008. After completing my Masters I successfully got this PhD scholarship from the British Council in Cairo and the Egyptian Government to study in a British University of my choice.

"B-vitamins and bees"

The talk will cover; Geometric Framework for Nutrition, Food regulation, Impact on survival, Data explanation.

Dylan Elen

Nature has always been my passion, going from wild plants, butterflies and bees to even earth science. At the age of 18 I started studying geology at the KU Leuven (Catholic University of Leuven, Belgium). After I got my BSc degree I decided to leave rocks and minerals behind and followed modules about forestry and nature conservation at the same university. In the meantime I also became a beekeeper and got passionate about conservation of the endangered Dark bee (Apis mellifera mellifera). I got involved in organizations and projects targeting this goal which made me realize I want to use my science skills to help out (honey) bees sted in a variety of bees across the UK and welcomes all bee keepers. Within my PhD research I mainly focus on 2 topics. The first being the genetic pollution of the Welsh honey bee, the second being Varroa resistance mechanisms in a treatment-free honey bee population in North-west-Wales. Both topics being of utmost importance to contribute to the development of sustainable beekeeping in Wales and potentially elsewhere as well. My research interests on the other hand are much broader, containing conservation genetics; feral colony ecology; rewilding; breeding; competition with other pollinators

Nicola Simcock

I am a Research Associate working at Newcastle University's Honeybee Lab. I have been a member of the lab for almost 10 years and during this time, I have taken part in many different projects including learning and memory, pesticide detection, nutritional regulation and addiction. My current research focuses on the much-understudied honey bee taste system. For this project I use many different techniques to investigate how the taste receptors of the honey bee function, with the overall goal of figuring out exactly what the bee can taste. This work includes an entirely novel method in which I transfer the taste receptors from honey bees into fruit flies to understand what they do. To carry out this process I have been based at a specialised insect taste lab at a University in Texas for the last 2 years and learnt many exciting techniques.

"Food for thought, the honey bee as a model animal to study physiology"

Have you ever wondered what happens when you give a honey bee cocaine? Or whether bees can suffer from depression? And importantly, if answering questions like these offer any real scientific advantage? As we all know, the honey bee is an incredibly valuable pollinator, benefitting the agricultural industry worldwide through its pollination services, in addition to honey and wax production. However, the honey bee is also important to medical science, and labs across the globe study different aspects of honey bee physiology for medical applications. The information we have gained through honey bee studies has helped progress our knowledge in a variety of areas such as learning and memory, nutrition and even addiction. I want to introduce a few topics, from my own lab and others that highlight what an important animal the honey bee is to the scientific community. Additionally, I wish to share some of my own research on honey bee taste. I have spent the last 2 years in Texas, working on a brand-new system to understand the honey bee taste system and why it is so important to understand how, and what, bees can taste.

Jessica Knapp

My research explores how pollinator-friendly management may affect pollination services and/or species conservation, as a way of finding sustainable farm management practices which simultaneously improve pollinator populations and farmers' agricultural resilience.

I am a member of Professor Juliet Osborne's pollinator ecology research group at the University of Exeter's Environment and Sustainability Institute. I am currently contributing to the Managing Green Space project where I am working with partners in research, industry and the environment to apply bee population models to contemporary conservation and food security issues in Cornwall and the UK. This project is part the South West Partnership for Environmental and Economic Prosperity (SWEEP) which is funded by NERC.

"Mechanisms and Management of crop pollination"

Negative impacts from intensifying agriculture have generated concerns that pollinator-dependent crop species, such as courgette Cucurbita pepo L., may be experiencing a pollination deficit. I draw on a range of different techniques including meta-analyses, computer simulations and traditional observations to explore the extent to which pollination influences fruit set (the mechanism); how pollination could be improved (the management); and how in doing so growers' profits and agricultural resilience could increase. This talk will cover how pollinator-friendly management may affect pollination services and species conservation, with the aim of improving both. My research is the first to study the pollination requirements of cucurbit crops in the United Kingdom and the first to use novel bee population models to simulate the effects of cucurbit nectar and pollen (in the context of real landscapes) on bumblebee population dynamics. Although I frequently use courgette as a model species, I discuss my findings generally with clear applications to pollinator and pollination management in a range of different systems.

Siobhan Maderson

I am currently completing my PhD in Human Geography at Aberystwyth University. My project builds on interdisciplinary research carried out for an MSc in Food and Water Security. Before returning to academia, I worked with the Environmental Law Foundation, and Sustain (the alliance for better food and farming). I have a long-standing professional and personal interest in developing constructive working relationships with diverse individuals and communities, to encourage environmentally sustainable practices and land use. I am a lecturer at the Centre for Alternative Technology, focusing on Sustainable Food and Natural Resources.

"Expert and Experiential Knowledge in Pollinator Policy: The Perspectives of Beekeepers"

This presentation explores the environmental and wider experiential knowledge of long-term beekeepers, and how this knowledge is utilized in wider arenas, such as scientific research, and policy-making. I use qualitative data from archival research of the IBRA and Bee Farmers Association, as well as interviews with beekeepers who have between 20 – 70 years' practical beekeeping experience. This has provided detailed evidence on historical and current working relationships between beekeepers and the scientific and policy-making communities, as well as beekeepers' perspectives on pollinator decline, and policy responses designed to improve the environment. Data suggests that beekeepers generate a wealth of phenological and wider environmental observations, as well as practical understandings of local variances, and complex synergistic relationships between bee health and multiple environmental factors. However, there is a tendency for their observations to be sidelined in other formal arenas. I will discuss potential models for more constructive engagement with beekeepers' tacit and hybrid knowledges, via improved Citizen Science research, co-designed projects, and Multiple Evidence Bases.

Anthony Williams

Anthony Williams initially trained as an Organic Chemist, obtained his Phd in 1992 from the University of Hertfordshire. The work involved the identification of novel agrochemicals and was carried out in collaboration with Rothamsted Experimental Research Station.

Anthony then went on to work in the pharmaceutical industry for 20 years, in the field of drug discovery and chemoinformatics. In 2012 Anthony moved to De Montfort University where he is employed as a lecturer in the School of Computer Science and Informatics. Anthony has been keeping Honey bees for 8 years, and has a small apiary of 20 hives. His research interests is in the area of honeybee health monitoring. He is also the COLOSS English coordinator for Winter hive losses survey, part of a pan European project which has been running for 10 years.

"Overview of COLOSS and Honey Bee Health Monitoring"

Overview of the COLOSS organization and Honey Bee Hive losses with reference to the winter of 2017/18.