

HOW BEES PERCEIVE THE WORLD – THE SENSES OF THE BEE—Pam Hunter – 6th August 2020

We had an interesting talk from Pam, quite in-depth and giving inspiration to find out more about bee senses.

Pam made some comparisons with humans and the bee, the extremely sensitive finger tips humans have is the nearest comparison to the antennae of the bee. They have a range of senses: vision, touch, taste, smell, hearing and vibration, detection of relative humidity, detection of CO2 and other chemicals, detection of gravity, stress in cuticle, stretch in muscles. Such a lot for a tiny creature. We saw interesting diagrams of the bees' nervous system, the drone and the worker bees face.

We saw a cross section of compound eye - workers have 4500 facets and drones 7500. The bee is able to detect fast movement very efficiently because of the large number of lenses, which have a high flicker sequence, an enormous amount more than humans.

Pam explained the different spectrum of colours the bee sees and that they seem to prefer blue and yellow, but learn to go to other colours. The colour and scent of flowers make them more obvious enabling the bee to find the appropriate flowers. A lot of flowers have markings that the bee can see but we cannot. The flowers also show where there is nectar, but the bees can only see flowers when they are close. They can detect the movement of the flowers in the breeze. They will mark a flower that they have visited for pollen to give direction for another bee. They can detect smells from a long distance more than they can see colour.

Before flying back with pollen, the bee needs to clean her antennae to fly back to the hive, as it may impede her navigational skills to find her way back to the hive.

This is an enormous subject and Pam gave us an insight into how complex and absorbing the study of bees can become.

JILLY SPEAKMAN-BELL

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EBKA Charity Number: 1031419

September 2020

Romford Division

DATES FOR THE DIARY

Committee Meeting: Wednesday 9th September, 7.30pm, via Zoom.

October meeting: Thursday 1st, 8.00pm, via Zoom.

Speaker: Kevin Thorn

Topic: Abberton Native Bee Project

September Beekeeping Notes

Please also refer to the notes on Winter Preparations that I sent out last month.

This is the month when temperatures can drop a lot, especially overnight, and it can become difficult for the bees to reduce the water content of their feed to the right level for safe storage (below 20%). Therefore syrup feeding should be completed as soon as possible and definitely by the end of the month. It is a good idea to give a top-up of syrup feed even if you left the bees some honey as it will encourage the queen to go on laying and will provide a mix of stores in the hive.

Varroa treatment should also be completed this month if you are using one of the products that are temperature-dependent. Don't forget to record what you do and also record the varroa counts.

Once feeding and treating are over, remove the floor inserts to leave the mesh floors open. If you are wintering on National brood and super, swap the boxes so the super is below the brood box and – **most important – remove the queen excluder!** Whatever type of hive you have, close off ventilation at the top of the hive (ventilation at the bottom is enough and is better).

Pat Allen

Thames Chase Teaching Apiary Working Party Tuesday 18th August

About 12 members came along to help at the working party at the teaching apiary to garden and clean equipment. The meadow area in the middle of the apiary has done well and a selection of wild flowers are growing there - including birds-foot trefoil, ox-eye daisy, knapweed, and of course, thistles. Next year this meadow area will continue to provide forage for the apiary bees. This area was strimmed and several hawthorn trees which had previously been reduced in size were removed down to the ground. The shrubs and brambles around the edges were trimmed back.

Some of the spare equipment was cleaned and scorched ready for winter storage. In one stack of super frames a colony was discovered which had taken up residence and were doing well. The colony was inspected and given a broodbox and new broodframes, they will be left to overwinter there as they were looking strong with lots of brood and stores.

Sue Richardson

Courses:

Refresher Session: Hive Inspection

Pat Allen held this session in the Teaching Apiary for our newish beekeepers to refresh memories of how to inspect a colony at a key point in the bee-keeping year – August. Sue Richardson very kindly acted as Health & Safety person and there were six students, all safely distanced. Everyone was suitably kitted up, and the smoker was lit before veils and gloves were put on.

Key points were noted as the hive was opened and inspected. **1:** observe the entrance, we want to see purposeful activity and pollen being taken in. **2:** A little smoke wafted across the entrance. **3:** Roof taken off gently and supers removed and stacked on the upturned roof. Super frames are often stuck between the boxes and Pat used a wedge to hold up a super while she checked for this and used the hive tool to push lower frames back into place. The super could then be lifted off without disturbance to the bees. **4:** Remove queen excluder carefully and check the underside that the queen is not there. Place at front of hive. **5:** Make space to work by removing the dummy board and the first frame and putting these either on a frame hanger (see picture) or in a box at the side of the hive. **6:** Lever each frame away gently and lift without rolling bees. Look at the face of the next frame as you lift a frame (you may spot the queen), then turn your frame to look at the dark side first (queen most likely to be that side). **7:** Bring frames up to your eye level, don't bend over.

Pat worked steadily and calmly through the frames, scanning the frames for the queen, round the comb edges, then into the centre, then turn and repeat on the other side. Check for eggs and young larvae (to see eggs, get the sun shining from behind over your shoulder into the base of the cells). Does the brood look right? Pat showed how to shake the bees off a frame to do a check for disease. There was healthy brood in all stages and the queen was found – she is new this season and has not been clipped or marked as Pat does this in April. The stores were noted, and the supers checked for honey that can be removed. The bees behaved beautifully and the weather was on our side too. Finally notes were made on our findings; Pat will write up the apiary book from these later (with clean hands).



Bring frame to eye level, don't give yourself backache.

Romford Honey Show

Regretfully the honey show and supper are to be cancelled this year due to COVID 19. Hopefully by next year the position will have changed and we can all look forward to exhibiting again.

Angela Mander

All photos courtesy of Susan Richardson



Disease check: bees shaken off to see cells.

Frame of beautiful pollen.

General Husbandry Course:

EBKA needs more BBKA Basic Assessors; we only have a few and some of us are getting rather long in the tooth. To become one of these you need to have passed your General Husbandry Assessment. We have many experienced beekeepers who could do this, but they are reluctant to go for it, maybe believing that it is more difficult than it is.

The EBKA plan to run a course, with theory sessions during the coming winter and practical sessions next spring, covering the syllabus of the General Husbandry Assessment, and beekeepers with a good number of beekeeping years under their belts are invited to do the course. There will be no compulsion to take the Assessment itself, but at the very least you will be able to help run 'Basic Assessment Preparation' sessions for your Division.

So come on, Guys, take courage and go for it! Let Sue Richardson know if you are interested.

Pat Allen