THE LEEDS BEEKEEPERS ASSOCIATION
BRANCH OF THE YBKA
AFFILIATED WITH THE BBKA

"The Leeds Beekeeper"

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"I found the pollen"

© Caters News Agency

Honey, honey I've got honey. Admittedly not much, certainly couldn't fill a jar yet but the sweet elixir of summer is filling my hive..... best get some jars and labels ready!

CHAIRMAN'S NOTES

Mayday, Mayday, swarm alert, swarm alert!

This is the danger time for swarming it is easy to become complacent and assume a colony is thriving and all is well. Of course all probably is well for the colony, but a swarming colony will not be so good for the beekeeper or the honey harvest.

At this time of the year, most queens will have reached their peak rate of egg laying. I have heard figures from about 1500 to 4000 eggs a day from a well-nourished queen. The queen's laying rate will depend on the ability of the workers to find enough food for the colony and space within the hive for the queen to lay. If space runs out the bees will naturally swarm. Be on your guard and when doing your 7 day inspections look for those swarm cells.

Swarm control is the main target of management over the next two months and in my opinion it is the most difficult skill in beekeeping to master and I include varroa control in that assessment.

If you fancy doing some cut comb now is the time to put your frames in the supers with the starter strip in. That's providing that the oilseed rape is finished.

Now that the weather is fine get out into your apiary and enjoy yourself with a little beekeeping, have fun.

Duncan

HISTORY OF TEMPLE NEWSAM APIARY - LEEDS – PART 2

Very soon after, work commenced on excavations for the pavilion which was being carried out by the Leeds Youth Training Scheme (YTS); unfortunately it was to be a long process, due to the haphazard labour resources used in such schemes. 1987 saw the foundations completed and block work commenced but it was to remain half completed for almost a year. Undaunted by this, I arranged a two-weekend working party to dig out trenches for the cypress hedging. It is true to say that to a man all the membership came and helped. Gordon Kirby brought a trailer load of manure. He arranged for the soil to be rotivated to a fine tilth and planting began in earnest and was completed in record time. By mid-1988 work was well advanced, the walls in place, the roof was on but the store and toilet remained half finished. In the spring of 1989 work had virtually stopped, due to the winding down and eventual disbanding of the YTS. It was further aggravated with the funding for our works being used up. Undaunted I took to writing begging letters to a few grant-aiding charities to raise the necessary funds to finish the building for an anticipated opening in June 1991. Eventually after writing over 1100 letters to all manner of charities, I was able to get £5000 from the Frank Parkinson Agricultural Trust (Parkinson of Leeds University fame) and £2000 from a series of small sums from Leeds Councillors' MICE allocation. Terry Pearson laid the facing bricks at the front of the pavilion with the Leeds City Council's Building Department completing the remaining work. It was finished in the spring of 1991.

In the May of 1987 Robin Tomlinson and I saw Mr Tinker with a view to acquiring a room for honey extraction; several buildings were offered but none was suitable, due to their close proximity to the cow byres. However, he gave us access to the use of the main barn with a stage area for us to have a seasonal static display of beekeeping. This was taken up and used to good effect for a number of years.

In the late autumn of 1988 John Tinker mentioned to me that the West Yorkshire Police Horse Section would be vacating the stable block and it might be possible for us to have an extraction room facility. Alan Hawes, Bernard White and I duly met with Mr Tinker and were shown a toilet and store and a vestibule for static displays and, hidden amongst a packed store of theatre props, a redundant milk fridge! We realised very quickly this was the ideal place. The room with a milk fridge was an ideal warming room. Insulated with cork matting, this would easily accommodate 20 + supers. We asked Mr Tinker for time to think it over (in fact that was a ruse to talk to him separately as he had two officials with him). I met him separately and explained that we had no cash to fund any refurbishment, could he help? Within a few days he advised he could let us have a grant of £2,000. That spring we started work which continued right through to the autumn. The extraction room needed copious amounts of work doing to it before it could be transformed to its new usage. It needed the roof to be re-slated and tiled; new electrics; hot and cold water; washing facilities and drainage. I recall a number of us whose names readily come to mind spending every Wednesday evening for a number of weeks working, Alan Hawes and Terry Armitage painting, and Norman Ward doing most of the electrical work; Robin Tomlinson, Eric Wheldon and his two young sons and David Hild cutting grass and being general go-fors.

In October 1990 I had a chance meeting with Lord Normanby (formerly the YBKA President) who was travelling back from the House of Lords by train. I mentioned the apiary project advising him that we would need about £3000 to purchase stainless equipment to fit it out. He asked me to write to him explaining our requirements and naming three trustees who would take responsibility for the equipment. The three trustees were named as myself the principal, Alan Hawes and Bernard White. I posted a letter to him in early December and in the New Year I received a cheque for £3500.

How the clubhouse looks now © C Barlow

In the summer we officially opened the pavilion and the extraction room, with Kingsley Law the BBKA general Secretary as our guest speaker for the day. I recall our ladies provided a sumptuous strawberry tea with a 180 people attending including three from Wiltshire and two from Northern Ireland.

Later that day, I was harangued by Kathleen Grainger (a prominent LBKA stalwart who had been a member more or less since its formation in 1942) as to why I could not have done the same for the pavilion project at the YBKA Bee Garden at the Great Yorkshire Showground, Harrogate that her husband had cherished since the bee garden was opened in 1980. I explained that I had given Harry a deathbed promise that I would, but due to the showground's uncertain future, I would have to wait until 1997 before I could secure the necessary funding. This was done and the pavilion was duly opened in 1998. In 2005 the Yorkshire Agricultural Society approved a further extension to the pavilion, embracing additional (new) facilities for storage and electric convector heaters together with a toilet for the disabled and a larger kitchen.

Michael Badger

THE BEE ALL AND END ALL

An offering from the BBC world service, as Dr George McGavin investigates what would happen in a world without bees

http://www.bbc.co.uk/programmes/p04y3yyt

KIRKSTALL ABBEY 22ND APRIL 2017

LBKA's stand at Kirkstall

Leeds Beekeepers Association do our best to support local events especially ones which promote wildlife and the countryside. So last Saturday saw a team of volunteers at the "Upper Nidderdale In The City" event on a lovely spring day at the beautiful Kirkstall Abbey in Leeds. This was a family friendly event to give a taste of country life. It included a petting zoo with farm animals, willow weaving, nature trails, the chance to learn how to milk a cow, brass bands and of course our own intrepid team of beekeepers.

Dave Cook

NATIVE SCOTTISH BEE UNDER THREAT

Are these Scottish enough?

Recently efforts in the South-West to protect *Apis Mellifera Mellifera* have been widely reported in the media and now the focus has turned to the native Scottish honeybee. The Scottish Native Honey Bee Society has been created to help protect the indigenous species with a focus in education in an attempt to convert Scottish beekeepers to convert their colonies to native bees.

> *"Scottish native honey bees are a brown bee with a reputation for frugality which helps them withstand even the dreichest of Scottish weather." Gavin Ramsey*

Apis Mellifera Mellifera are more suited to the Scottish climate but with the influx of imported bees creating hybrids finding pure Scottish bees is becoming increasingly difficult. Beekeeping in Scotland is increasing in popularity with over 3000 beekeepers taking an active part in the hobby and a key part of the Native Honey Bee Society's work will be raising awareness.

http://www.bbc.co.uk/news/uk-scotland-39456644

BIBBA OPEN DAY - IMPROVE YOUR BEES

A day of theory and practice for all beekeepers

Date: Thursday 22nd June 2017

Venue: Walton, Nr Wakefield, West Yorkshire.

Cost: £18 before 25 May. £20 afterwards.

Includes: Lunch and refreshments.

What is it?
An all day event for beekeepers of all abilities to help and encourage them to improve their bees by using locally produced queens.

Why?
When buying queens you may be promised high yields and docility, but later generations of these queens can often produce aggressive colonies. To overcome this problem it is often advised to buy new queens every year, but this "quick fix" approach is unsustainable. Also if imported, they may not be best suited to your environment, with the added risk of bringing in disease.

What will I learn?
There will be presentations and demonstrations on a number of topics including:-

* Colony handling techniques

* How to assess colonies for behaviour

* Setting simple criteria for what you want in your bees

* Raising queens by simple methods (the bees often do it for you!)

* Making up and maintaining nuclei

* Introducing queens and queen cells

For more information see the BIBBA website http://bibba.com/events/ or email Roger Patterson roger-patterson@btconnect.com

To book
Booking is essential. Places are limited, so early booking is advised. Booking is online, just follow instructions on the BIBBA website link.

https://www.woodlandtrust.org.uk/visiting-woods/bluebell-watch-recording

BEEING SOCIAL?

Taking care of our honeybees, we tend to forget that most bee species don't actually live in colonies inside hives. Instead most wild bees are actually solitary (Peters et al., 2017). Researchers are still debating exactly how the extreme group living that we see in honeybees arose. We all know that honeybee workers don't generally lay eggs, but take care of their queen's offspring instead (Winston, 1991). That worker sterility has evolved is slightly odd. Generally, evolution requires a mechanism of inheritance. Fifty percent of our own genes come from our mother, and the other fifty percent from our father. If a honeybee worker does not lay eggs and pass on her own genes, then how were they able to evolve at all? This puzzled even Charles Darwin himself (Darwin, 1859). Working with Liz Duncan at the University of Leeds, I am interested in why and how honeybee workers can no longer lay fertilised eggs. And contrarily, I am studying this in a solitary bee.

"Red mason bee (Osmia bicornis), Sandy, Bedfordshire"; Orangeauroch; 17/08/2013 via Flickr; CC BY

The ability of honeybee workers to fertilize eggs is lost during development as a result of them being fed worker jelly (rather than royal jelly). This causes them to no longer develop a spermatheca (sperm storing organ) and their ovaries degrade. Workers can still lay unfertilised male eggs (drone brood), when their beloved queen is absent and is no longer spreading her pheromones (Winston, 1991). To investigate how this all evolved, we are studying genes that are known to control reproduction in honeybees. By researching what these genes do in a related solitary species, we can gain insights into how worker sterility likely evolved from the honeybee ancestor.

The solitary bee we are studying is the red mason bee (*Osmia bicornis,* formerly *Osmia rufa*). It is named so because it collects mud to build cells in existing nest holes (usually reeds and beetle borings; Raw, 1972). As in honeybees, the males are rather lazy… doing little more than mating. The hard working ladies however, build the beginnings of a cell and then they load it up with a mixture of pollen and nectar to make a pollen loaf. Afterwards they lay an egg on top of it and seal the cell with mud that they collect from near the nest. This process is repeated until the nest tube is filled, after which they may search for another nest cavity. The eggs hatch into larvae over the summer, the larvae consume the pollen loaf over summer/autumn and will have spun their cocoons by October-November. The larvae metamorphose in their cocoons and overwinter inside it, in the nest. Come spring, their cycle starts anew (Raw, 1972).

"Opened nest of a red mason bee (Osmia rufa)"; tpjunier; 13/05/2006 via Flickr; CC BY 2.0; cropped

Red mason bees do not have any pollen baskets, instead they gather pollen by lodging it between stiff hairs (scopa) on their abdomen (O'Toole, 2000). This means they are not the most efficient at gathering pollen, but luckily this makes them excellent pollinators, since they spill quite a lot of pollen over other flowers! For this reason they are already used commercially in greenhouses, orchards and allotments. Unfortunately, due to intensive agriculture, up to 160,000 km of hedgerow has been lost since WWII. This to the detriment of wild bees that like to nest therein. You can help these wonderful pollinators yourself. Setting up a bee-friendly garden by planting many flowers in it and setting up nests can aid tremendously (O'Toole, 2000). You can quite easily craft and create, or simply buy, your own solitary bee hotels (information below). Solitary bees, and *Osmia bicornis* in particular are extremely gentle. As in honeybees, only females can sting and they rarely do so. But do keep in mind that if you already have honeybee hives in your garden, they might be scared or outcompeted by them.

"Female red mason bee (Osmia bicornis) on a buttercup and with lots of pollen stored underneath its abdomen, Sandy, Bedfordshire"; Orangeauroch; 13/06/2013 via Flickr; CC BY 2.0; cropped

Several Fabre's hives have been put up at the Temple Newsam apiary. These are solitary bee hotels named after Jean-Henri Fabre. They have been put up in the hopes of attracting *Osmia bicornis* and other mason bees into making their nest there. With luck and if the honeybees do not scare them, we will take the nests back to the lab at the end of November, and find nest tubes filled with related individuals. These will then be used to set up behavioural experiments to see whether this species is capable of recognising kin from non-kin (relatedness is deemed crucial in social evolution).

Fabre's hive with females guarding their nests against parasites by blocking the entrance.

Jens Van Eeckhoven, PhD student at the University of Leeds (bsjve@leeds.ac.uk)

http://www.fbs.leeds.ac.uk/staff/profile.php?tag=Duncan_E
http://duncanlab.weebly.com/

Additional information

- Observation nest boxes: http://nurturing-nature.co.uk/wild-bee-nesting-box/
- Fabre's hives: http://oxbeeco.com/
- http://www.bwars.com/sites/www.bwars.com/files/info_sheets/Bee_Hotels_infosheet.pdf
- http://www.bwars.com/sites/www.bwars.com/files/info_sheets/04_Osmia_bicornis_20120321.pdf

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Winston, M. L. 1991. *The Biology of the Honeybee,* Cambridge, Massachusetts, Harvard University Press.

A USE FOR WAX MOTHS?

Never mind bags for life, bags for lunch!

Many a beekeeper will have opened their hive to see the tell-tale signs of a wax moth infestation and wondered “What is the point of the wax moth?” Well now scientists may have found a new purpose for the greater wax moth (*Galleria mellonella*) to help solve an environmental issue. Researchers at Cambridge University found that in addition to their propensity for eating wax, the moths will also happily snack on plastic. Polyethylene production is in excess of 80 million tonnes per annum, with major usage in carrier bags and food packaging. However it can take many hundreds of years for the polymer to breakdown in landfill and whilst the recent introduction of the carrier bag tax in the UK has done much to reduce our usage of “one use” carriers, much still needs to be done. It is far better to reduce our usage of these types of polymers than attempt to biodegrade them after use.

Maybe wax moth farming could be the next big thing?!

http://www.bbc.co.uk/news/science-environment-39694553

NEONICS AFFECT BUMBLEBEES?

Researchers at Royal Holloway University of London have looked at the effect of thiamethoxam, one of three neonicotinoids currently restricted for use in the EU, on four species of wild bumblebee. Bumblebee queens are currently not considered during pollinator pesticide risk assessments, but the researcher's work shows that the queens are indeed sensitive to neonics at field relevant levels.

Bumblebee on OSR © Jonathan Carruthers

Four bumblebees were studied as part of the work; *Bombus terrestris, Bombus lucorum, Bombus pascuorum and Bombus pratorum*. Bumblebee queens are likely to be exposed to pesticides as they emerge from over wintering and begin to forage and nest in agricultural areas. Whilst survival levels in the bumblebees were unaffected when exposed to field levels of the neonic, the terminal length of oocytes were reduced.

The bees were exposed to thiamethoxam via dosed syrup and in the cases of *Bombus pascuorum and Bombus pratorum* this caused a reduction in feeding of the queens. However *Bombus terrestris and Bombus lucorum queens showed no reduction in feeding suggesting that different bee species show differing levels of sensitivity to the compound.*

> *"We consistently found that neonicotinoid exposure, at levels mimicking exposure that queens could experience in agricultural landscapes, resulted in reduced ovary development in queens of all four species we tested," Dr Gemma Baron, Royal Holloway University*

The researchers found that there was a reduction in oocyte length in all bee species studied particularly at a higher dosage level of neonic. At this stage the reason for this is unclear but could be due to thiamethoxam leading to reduced pollen intake in the queens which is an essential nutrient in ovary development. This has been previously observed in *Bombus terrestris* workers exposed to imidacloprid (another neonic). It is essential that the effect on pollinators of these agrochemicals is fully understood to prevent bumblebee levels declining.

http://rspb.royalsocietypublishing.org/content/284/1854/20170123

APIARY OFFER

If any beekeeper would like to site a hive in a garden located on North Lane in Oakwood they would be very welcome. The garden is accessible for checking the hive. Lots of gardens, trees and Roundhay Park nearby.

Please contact David Haigh if interested (haighd@sky.com)

ASK THE BEEKEEPER

Have you got a burning beekeeping question that you want an answer to? Then please send it to editor@leedsbeekeeper.org.uk and we will do our best to find you an answer!

Got an article for the next edition? Please email to editor@leedsbeekeeper.org.uk by 31st May.

FORTHCOMING EVENTS

May

Saturday 13th - Apiary Day – 10.00 a.m. – 12.00 noon

Saturday 13th – Taster Day

Wednesday 17th – Thursday 18th – Countryside Learning 2017

June

Saturday 10th - Apiary Day – 10.00 a.m. – 12.00 noon