Beekeepers Association of the ACT

Newsletter of the Beekeepers Association of the Australian Capital Territory Incorporated

Meetings of our Association are conducted on the 3rd Thursday of every month (except December) at the Yarralumla Primary School Hall, 24 Loftus Street, YARRALUMLA, ACT 2600

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https://www.facebook.com/BeekeepersAssociationoftheACT

May 2016

Monthly meeting: 19 May 2016, Yarralumla Primary School at 7:30pm

AGENDA

1930 Introduction & Welcome– President (Cormac Farrell)
1935 Beeginners Corner
2000 Presentation from Jim & Christina Bariesheff – CoreEnviro Solutions
2030 Networking (light supper)
2100 Meeting close

Steve O'Hearn Secretary (0408) 657 871

President's Report

Dear Members,

It seems that I have taken up the position of president just as one of the previous committee's most significant achievements comes to fruition, with the imminent start of hive registration in the ACT. This is a critical link between biosecurity managers and beekeepers, and allows for early warning of major pest and disease outbreaks. It is hard to overstate how important this could become should Varroa or another major pest make an incursion past our border. Every other state and territory has a registration scheme, however Canberra remained a notable gap in our preparedness, which has now been filled. Mitch in particular has been pushing for this, seeing this as something that recreational beekeepers can do to help protect our commercial colleagues, as well as our own colonies. We will be discussing this at the next meeting, and we will be looking to assist members in registering their hives, as well as representing their views to government on the issues associated with this change.

As your newest president I am acutely aware of the large shoes that I am trying to fill, and I am grateful that the new committee has a range of old and new faces, with everyone keen to do their part.
Our immediate past president, John Grubb, stays on the committee in his new role as our Training Manager, assisted by another former committee member and master swarm wrangler Dermot. Mitch is continuing as vice-president, and he brings a great appreciation of commercial production to the mix. I used to be Treasurer for the Environment Institute, so I really appreciate Jon Justin stepping up and taking on this role for our association. We also have Steve O'Hearn already busy as our Secretary with the number of items on our agenda.

One of the major achievements of the previous committee was the establishment of the Jerrabomberra Wetlands Apiary, which now serves as a permanent home for our demonstration hives, as well as a hub for future training. Our hive management team will be led by Jeff Matsen and assisted by Frank Derwent.

We also have a few new positions that recognise the growth of the Association and the new areas that we need to manage. I am really glad to see enthusiastic young members like Sarah and Stephanie take the reins as our Products Manager and Events Co-ordinator respectively. Both already have a lot of past experience in these areas from previous work which they are bringing to the table. If you are reading this online then you can thank our webmaster, Thomas Poole, who fills this critical position for connecting to members and the broader beekeeping community.

It has been a tough summer and autumn for our hives, with dry conditions significantly reducing nectar flows. My hives are feeling very 'light' and I have been packing them down and starting to feed them. I haven't been through a winter where my hives have such empty stores, and winters like this are where we earn our keep as beekeepers, by keeping our colonies alive and healthy. It also shows the value of the association, where less experienced beekeepers like myself can tap into a pool of knowledge that goes back generations.

Regards,

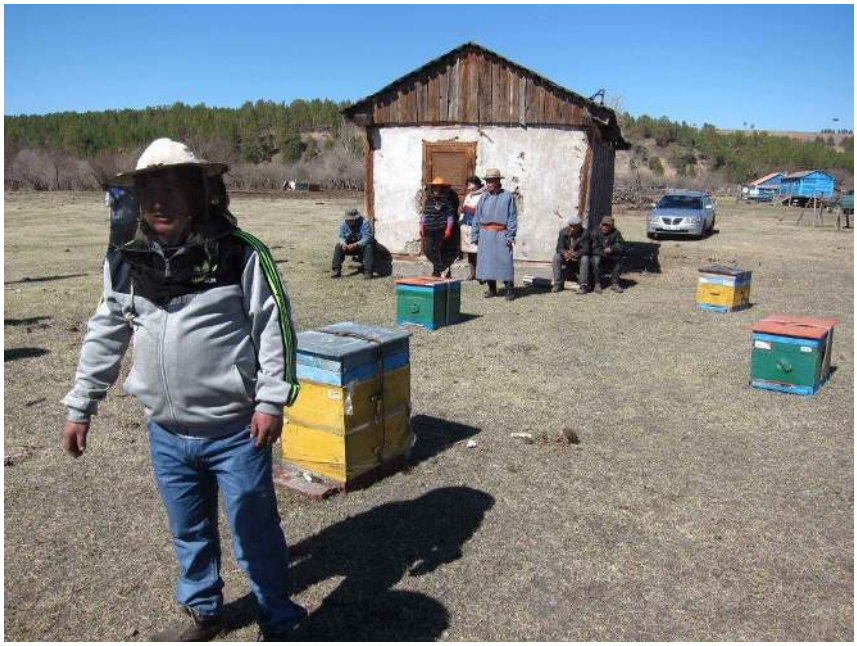
Cormac Farrell, President

Wonders of the Flying Herds – Beekeeping in Mongolia

My colleague, Conrad, recently travelled to Shaamar in the Selenge province of Mongolia – near the Russian border, to assess a local beekeeping project supported by World Vision and the Australian Government through the Department of Foreign Affairs and Trade (DFAT). Conrad was greeted warmly by the local Governor and the beekeepers, who enthusiastically gave him the traditional salted tea welcome.

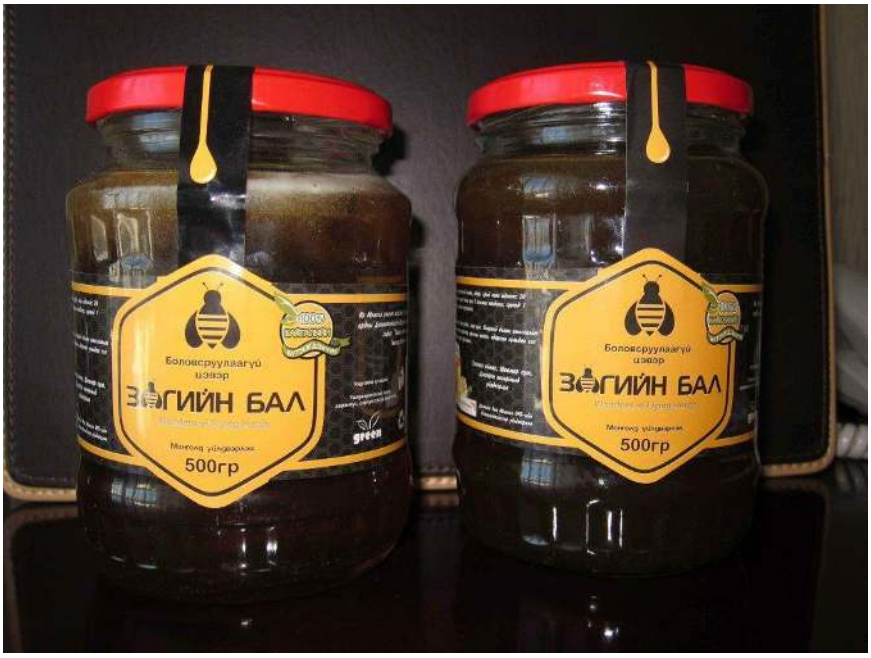
Conrad with the local World Vision Project Manager at the Shaamar statue depicting the local favourite rural industries; bees and apples.

World Vision has supported community groups to access start-up supplies and resources for bee farming development as part of a broader program to combat deforestation. The locals are trained at the Shaamar Vocational Training Center – very similar to our facilities at Jerrabomberra.



The Shaamar beekeeping community hard at work.

The Mongolian honey bees must be tough. The temperature is often minus 30 degrees and the season is only six weeks long! We could not find out exactly what food they survived on. There are apple and fruit trees, but the landscape is mostly barren. We suspect that Mongolian bees are fed a lot of sugar syrup. But reports are that the honey is delicious, and provides much need cash for the locals.



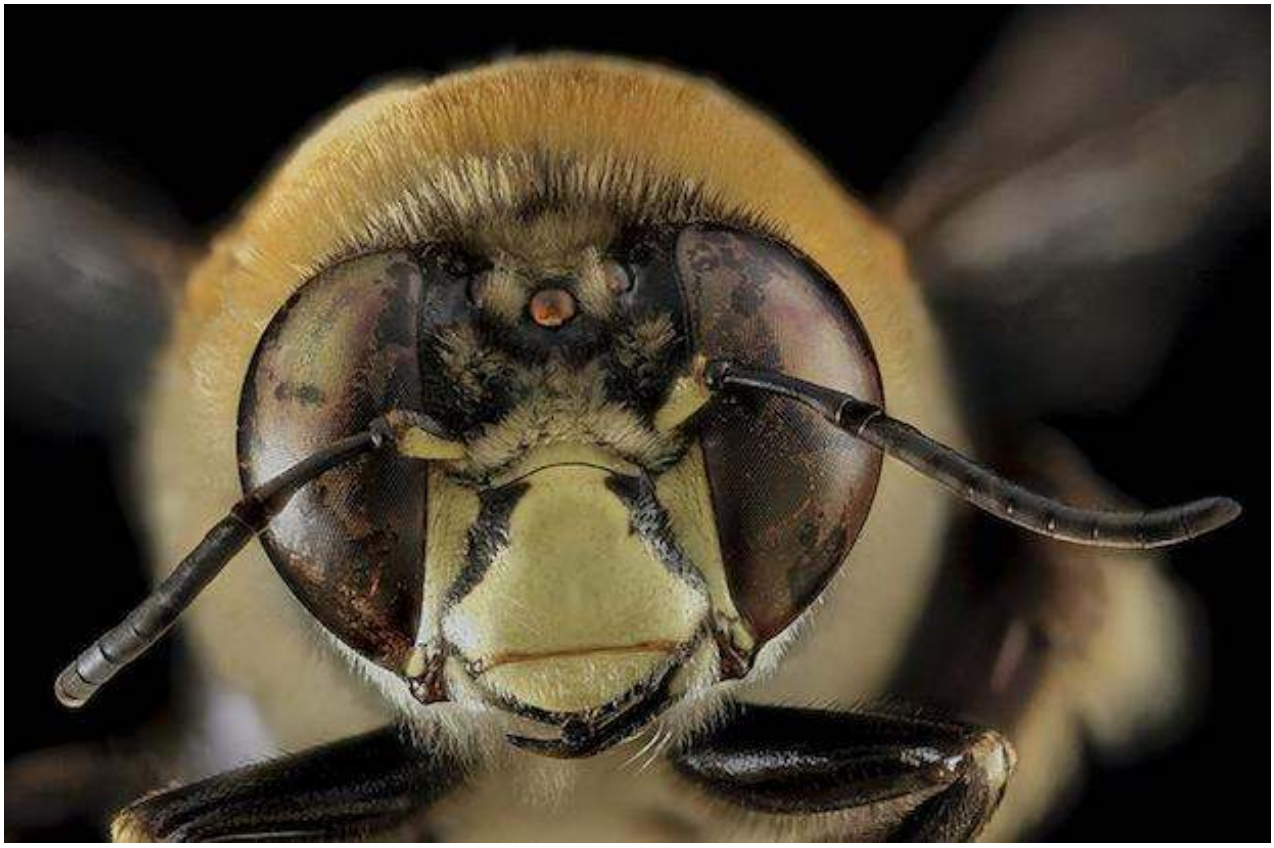
Jars of the local honey, 'Wonders of the Flying Herds'.

Many thanks to Conrad, World Vision Mongolia, DFAT and members of the Mongolian beekeepers community.

Introducing a queen - 100% success!

The following is an idea from Reigate BKA, that ‘guarantees’ 100% success!!!

"Last year I saw a Polish bee farmer replacing his old queen by dipping her into a jar of honey, and then spooning her into the hive. So I decided to have a go last year.
I took a queen from her cage and I dropped her into honey; this covered her completely. I then spooned her out onto the frame top bar. The bees rushed to lick the honey and rescue her - which only took five minutes. The bees then groomed her until she was completely dry and was running on the comb. An hour later, I double checked and saw her walking on the comb without any fuss. The next day, she was still alive - this method worked very well.
On another occasion I was transferring bees into my observation hive for a village show. I couldn’t find the queen, so I had to introduce a new one quickly. I took a new queen from my mini mating box and introduced her into the colony the same way - dipped into a jar of honey - and hoped for the best. An hour later when I got to the show, I was delighted to find her walking on the surface of the comb with the bees. It was a great show, and all the visitors were happy to see the bees and the queen.”



Bopping bees rock the hive

We know that bees tell each other where food is by performing a dance on the honeycomb. Now, with the help of lasers and strobe lights, researchers have discovered how bees attract audiences to the dance floor. A honey bee back from a foraging mission uses a coded dance, including a side-to-side 'waggle', to tell her nest mates where she has been. Soon, other bees arrive and copy her moves before flying off to find the food. "But the complex interaction between honey bee dancers and their followers is far from being understood," says Jurgen Tautz of Wurzburg University. One of the key puzzles is how a dancing bee

attracts her audience. Bees often arrive from cells elsewhere in the honeycomb where they couldn't possibly see the dancer, and probably couldn't feel the low-frequency vibrations of the waggle dance over the higher pitched buzz of the colony. Perhaps the answer lies in the structure of the wax comb itself. The comb is slightly elastic, so it won't vibrate like a rigid solid. Instead, a vibration radiating from a waggle dancing bee may make the cell walls swing progressively more out of time with each other. Eventually, there would be a phase reversal - one wall of a cell starts to vibrate in the opposite direction to the other wall. Any bee in the vicinity would feel her feet wiggling in opposite directions - a signal she might be expecting.

To test the idea, Tautz's team simulated the low-frequency vibrations of a waggle dance in a cell of an empty bee hive, and measured the response in other cells with a laser. Sure enough, they found phase reversals in a complex pattern of single cells up to seven cell widths away. With strobe lights and video cameras, the team also recorded more than 132 dancing bees recruiting 471 followers in an active colony. As Tautz predicted, most of the followers came from a region of the hive where the cell walls were vibrated out of synch with each other.

Courtesy of Essex BKA

Laser intended for Mars used to detect 'honey laundering'

A laser tool funded by the European Space Agency to measure carbon on Mars has been used to detect fake honey. The counterfeit goods trade might more commonly be associated with handbags and watches, but it turns out that the world of honey trading is also a murky one, riddled with smuggling and fakery.

According to a Food Safety News investigation, more than a third of honey consumed in the US has been smuggled from China and may be tainted with illegal antibiotics and heavy metals. To make matters worse, some honey brokers ‘create’ counterfeit honey using a small amount of real honey, bulked up with sugar, malt sweeteners, corn or rice syrup, “jaggery” (a type of unrefined sugar) and other additives -- known as honey laundering. This honey is often mislabelled and sold on as legitimate, unadulterated honey in places such as Europe and the US.

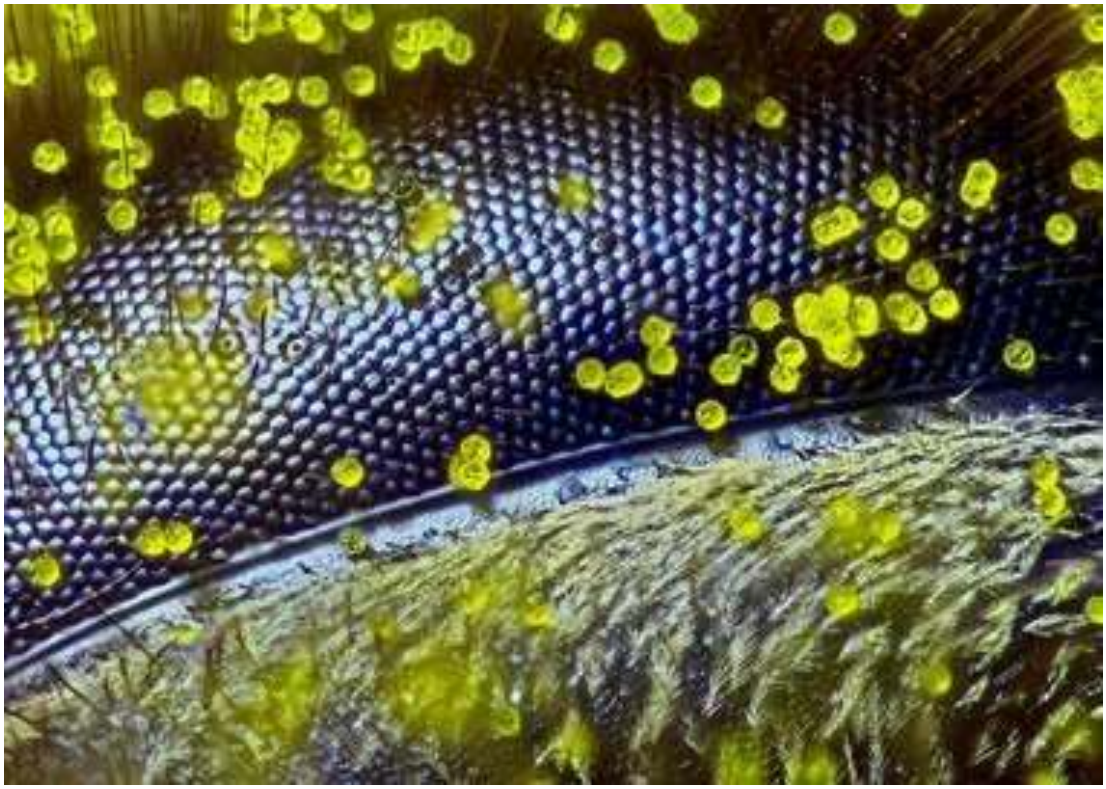
Thanks to a new laser "isotope ratio-meter" developed at the Rutherford Appleton Laboratory at Harwell, this fake honey can be detected. The device has small, highly accurate lasers designed to be sent into space to look for trace amounts of gas in very small samples. The laser has an adjustable optical frequency or "colour" that can be beamed at a gas sample. The frequency can be adjusted until a certain frequency that is specific to a particular gas is reached, and the light is then partially blocked.

"Each molecule, and each of its isotopic forms, has a unique spectrum. If, on the other hand, you know what you are looking for, you can simply set the laser to the appropriate frequency," explained Damien Weidmann, Laser Spectroscopy Team Leader at RAL Space.

The same tool can be used to scan the carbon dioxide released from burning a few milligrams of honey olive oil, chocolate, wheat or whatever to see whether it is a cheap substitute or not.

RAL Space has teamed up with UK company Protium MS to develop a small portable device that can be used to probe for counterfeit foods -- not just honey. This will provide a carbon isotope fingerprint that shows the product's provenance. "We will know, in the case of olive oil, if it genuinely comes from Sicily or if it is a counterfeit fake.”

David Bell, director of Protium, explains that honey is a "classic example" because "it's expensive to buy, but it is easy to make a counterfeit product that looks very similar using sugar instead of bees." Laser analysis of this sort can match the honey to the flowers of a specific geographic region.



The image shows the complex eye (x120) of a Western honey bee, Apis mellifera. Each black segment is one of thousands of tiny lensed units. Each eye unit supplies a small section of the whole image that the bee sees. This picture won the 2015 Nikon Small World Photography competition.

THE GREAT ESCAPE

Jody Bourton, BBC Earth News via E-bees and Notts BKA

During the reproductive season, large honeybee (Apis mellifera) colonies synchronise an explosive departure of most of their workers and the queen. This causes a swarm as the honey- bees travel to form a new colony in a new location. The sudden departure of bees has been known about for centuries and beekeepers have even found ways to avoid it happening and avoid losing valuable bees. However,scientists have only recently begun to understand how the bees coordinate their departure and mass exodus*. "In this study we wanted to determine what bees are responsible for organising this mass departure, and how they organise this process in an efficient manner,"* says Dr Juliana Rangel and her team from Cornell University in the journal "Behavioural Ecology and Sociobiology."

Animals that travel in groups must synchronise the timing of their movements. Three different decision making mechanisms are known to coordinate a group's departure. Rangel explains*. : "In a democracy, the majority of the individuals in the group decide when the move will take place. In the other extreme is the despotic mechanism of decision making, in which only one individual, the group's leader, makes the decision of when to move. Right in the middle lies an oligarchy where a small number of well-informed individuals, makes the decision of when the group should move. Decisions of group travel made by an oligarchy are very rare, and very few studies have reported on this. This contributes to our knowledge of how a small group of individuals can make important decisions for an entire group."*

This concept, and much more about how a swarm of bees finds and moves to a new home is described in the excellent book "Honeybee Democracy" by Tom Seeley.

PermablitzACT

Kathy Bates has requested assistance from a beekeeper who would be willing and able to talk to the PermablitzACT group about backyard/urban beekeeping.

PermablitzACT aims to help members turn their unused, tired suburban lawns and backyards into edible gardens filled with vegetables, fruit trees, nuts and berries, as well as native vegetation and habitat.

The group ranges from beginner gardeners through to trained permaculture enthusiasts with years of gardening experience. A couple of our members also belong to the ACT Beekeepers Association but many would be new to the idea of bee keeping.

The group meets on the second Thursday of the month at the Canberra Environment Centre at the ANU (map)**.** I'm interested to find a speaker for a future meeting on 9th June or 14th of July. Please contact Greg Bates at the ACTBKA meeting.

Our new website

It's all there in one handy location: information, news, forums and links. Register to take part in the forum discussions.

More photos and information from our forum at the website or Facebook

Classifieds