

Beelines

Newsletter of The Beekeepers Club Inc. Est 1998.

February 2016.

Mission statement:

*To enhance the learning and better practices
of the art of beekeeping within our community.*



Family day Sunday 31st January 2016

*Meeting venue; Senior Citizens Club. 895-901 Doncaster Road Doncaster
East. Melway 47k-1. Opposite Dan Murphy's.*

Meetings held 3rd Thursday of each month 7.00pm for 7.30pm.

Guests and Visitors are Welcome

Enquiries and information:

editor@beekeepers.org.au

Next Meeting.

18th February 2016. Start 7.30pm.
 7.30pm. Paul Davies. Honey Extraction
 8.00pm. Gavin Jamieson. Flora identification

Upcoming events:

4th - 27th February Beginners Course.
20th February 2016 McDonald Honey visit. (registration via website) 10 places available.
17th March 2016 Prof David Vaux WEHI . Using bees to research cancer
21st April 2016 A prominent chef on using honey for cooking

The “J” Bee-Keeping School
 BEE KEEPING and HONEY FESTIVAL
 SUNDAY 6th March 2016 10am - 4pm

LOCATION: JADRAN SOCIAL CLUB 35 DUNCANS LANE, DIGGERS REST 3427

Demonstrations of bee-keeping operations

! Glass bee hive - watch them at work safely, behind glass

! Bee-beard (subject to conditions on the day)

! Honey- varieties for tasting and sale

! Mead and Honey Liqueur- tasting and sales

! Bee-Keeping goods - sales

! Various other bee related products for sale

! Kids corner— learn all about bees

! Various other attractions including a live band

Melways ref. 352 G 11 BQ lunch, cakes, tea, coffee and drinks available.

Admission \$3.00 per adult, children free

Family Day.

The family day held on Sunday 31st January was a great success, in excess of 87 members and guests enjoyed almost perfect weather, good food a great social atmosphere and a very amusing address by John Edmonds who gave us an insight into beekeeping over 40 years.



Barry Cooper (club member) advised us in the last edition of Beelines that a member had the symptoms of AFB in their apiary. Barry has sent me a further update to this incidence.

“ Don, when we met last Sunday I mentioned that the member's hive that has previously returned a positive AFB result with a VITA test kit, had received a negative result from Gribbles from a microscope smear.

The member tested the hive again and once again a positive AFB result with a VITA test kit was obtained. Another microscope smear was sent to Gribbles and this time it returned a positive result.

We now conclude that the hive was infected with AFB. The beekeeper is now taking appropriate action under the guidance of Joe Riordan”.

The moral is if you suspect anything is wrong with a colony, do not hide it for fear of being branded a “poor beekeeper” do the opposite take immediate action and seek help...editor.

For those club members wanting assistance or help we now have a FAQ page and forum on the website. This is an excellent way to quickly find an answer to any question, if this forum does not satisfy your problem just email your enquiry to mentor@beekeepers.org.au for a quick return reply.

Extractor Hire.

For those wanting to hire the club extractor it is now available for hire.

The hire cost has been set by the committee as:-

No charge for a maximum hire of 2 days. There will be a deposit of \$ 75.00 which is fully refundable, on a clean and timely return of the unit.

If the unit is returned late there will be a charge of \$ 5.00 per day thereafter.

A booking page is on the club website to facilitate an easier booking process, or alternatively contact Aris Petratos on 0425 706 426 or aris@himp.com.au. to arrange.

Dawson's burrowing bees leaving 'drill hole' trails across WA's Gascoyne



Photo: A female Dawson's burrowing bee emerges from its nest at Kennedy Range National Park. (Supplied: Department of Parks and Wildlife)

A native species of bee, unique to Western Australia's north-west, is leaving a distinct trail across the Gascoyne region, as hatchlings emerge from the ground.

The Department of Parks and Wildlife said physical evidence of the Dawson's burrowing bee only occurs from July to September, when new bees hatch from underground burrows to mate.

The females later tunnel into hard-baked clay pans to lay new eggs.

The department's senior operations officer, Gavan Mullan, said the whole process leaves thousands of holes in the landscape.

“The female emerges from the burrow in the ground and the males are all there ready and waiting for her...They then all brawl over access to the female, often killing each other”.

Gavan Mullan from the Department of Parks and Wildlife

"Their burrows typically look like a drill hole in the ground," he said.

"So if you can imagine someone has drilled into a piece of wood and there is a little pile of wood flakes on top, that's just what it looks like in the soil.

"Inland they will typically be in clay pan flats and around urban areas, like in Carnarvon, you will typically see them on unsealed roads.

"All of the little drill holes will be perhaps 10 or 15 centimetres apart and there will be sometimes thousands of them in a relatively small area."

Mr Mullan said the species is one of Australia's largest native bees and is predominantly found in the Gascoyne and lower part of the Pilbara.

He said caution needed to be taken when approaching the nests.

"Even though they are big and noisy, they are essentially harmless, but the experts say that if you do pick up a female bee, it will sting you," he said.

"If you are just there observing their activity they won't be disturbed by that."



Photo: Dawson's burrowing bee nests on a track near Pelican Point, Carnarvon. (Supplied: Department of Parks and Wildlife)

The insects have previously attracted the attention of wildlife enthusiast David Attenborough and the BBC Natural History unit, who filmed a documentary about their mating habits.

"The female emerges from the burrow in the ground and the males are all there ready and waiting for her, sometimes there might be 20 or so," Mr Mullan said.

"They then all brawl over access to the female, often killing each other, and in some cases the female even is a casualty."

Mr Mullan described the process as a "two-speed evolutionary outcome".

"The strongest males will dominate around the burrow hole," he said.

"The weakest males can still be in with a chance because they decide it's too competitive around the hole, and go to wait nearby in shrubs for the odd female that does escape the frenzied activity at the burrow entrance."

Mr Mullan said the bee generally does not produce honey.

"They collect pollen and nectar from flowers and that's just for the purpose of when they lay the eggs in their drill hole tunnel," he said.

"They deposit a bit of pollen and nectar in around the egg, so the egg can live off that when it hatches.

"It's a tiny amount and because they don't live in hives together there is nowhere near a commercial amount of honey available."

Ebonnie Spriggs Source ABC radio

Australia does not have any native *Apis* honeybees, but it does have over 1,600 species of other native bees. This diverse set of flying insects has evolved to exploit, and to work symbiotically with, the continent's huge diversity of plant species, many of which are prolific producers of pollen and nectar. The bees that produce most of Australia's honey are Western honeybees (*Apis mellifera*), also known as commercial or European honeybees. These were first brought to Australia in the 1800s to pollinate crops and to supply settlers with honey. Within a few decades these early bees had travelled across most of the country, making themselves at home both in the wild (where they are known as wild or sometimes even feral) bees, and in artificial hives managed by beekeepers.

The buzz on bees: they are not going away!

I RECENTLY CAME ACROSS THIS PAPER AND PRINT IT IN THE INTEREST OF GENERAL DISCUSSION.

Green hatred of pesticides ignores natural bee enemies - the Varroa destructor mite, American foulbrood bacteria, the parasitic phorid fly, and more!



Activist groups continue to promote scary stories that honeybees are rapidly disappearing, dying off at “mysteriously high rates,” potentially affecting one-third of our food crops and causing global food shortages. *Time magazine*

says readers need to contemplate “a world without bees,” while other mainstream media, articles have sported similar headlines.

The Pesticide Action Network and NRDC are leading campaigns that claim insecticides, especially neonicotinoids, are at least “one of the key factors,” if not the principle or sole reason for bee die-offs.

Thankfully, the facts tell a different story – two stories, actually. First, most bee populations and most managed hives are doing fine, despite periodic mass mortalities that date back over a thousand years. Second, where significant depopulations have occurred, many suspects have been identified, but none has yet been proven guilty, although researchers are closing in on several of them.

Major bee die-offs have been reported as far back as 950, 992 and 1443 AD in Ireland. The year 1869 brought the first recorded case of what we now call “colony collapse disorder,” in which hives full of honey are suddenly abandoned by their bees. More cases of CCD or “disappearing disease” have been reported in recent decades, and a study by bee researchers **Robyn Underwood** and **Dennis vanEngelsdorp** chronicles more than 25 significant bee die-offs between 1868 and 2003. However, contrary to activist campaigns and various news stories, both wild and managed bee populations are stable or growing worldwide.

Beekeeper-managed honeybees, of course, merit the most attention, since they pollinate many important food crops, including almonds, fruits and vegetables. (Wheat, rice and corn, on the other hand, do not depend at all on animal pollination.) The number of managed honeybee hives has increased some 45% globally since 1961, Marcelo Aizen and Lawrence Harder reported in *Current Biology* – even though pesticide overuse has decimated China’s bee populations.

Even in Western Europe, bee populations are gradually but steadily increasing. The trends are similar in other regions around the world, and much of the decline in overall European bee populations is due to a massive drop in managed honeybee hives in Eastern Europe, after subsidies ended with the collapse of the Soviet Union. In fact, since neonicotinoid pesticides began enjoying widespread use in the 1990s, overall bee declines appear to be leveling off or have even diminished.

Nevertheless, in response to pressure campaigns, the EU banned neonics – an action that could well make matters worse, as farmers will be forced to use older, less effective, more bee-lethal insecticides like pyrethroids. Now environmentalists want a similar ban imposed by the EPA in the United States.

That’s a terrible idea. The fact is, bee populations tend to fluctuate, especially by region, and “it’s normal for a beekeeper to lose part of his hive over the winter months,” notes University of Montana bee scientist **Dr. Jerry Bromenshenk**. Of course, beekeepers want to minimize such losses, to avoid having to replace too many bees or hives before the next pollination season begins. It’s also true that the United States did experience a 31% loss in managed bee colonies during the 2012-2013 winter season, according to the U.S. Agriculture Department.

Major losses in beehives year after year make it hard for beekeepers to turn a profit, and many have left the industry. “We can replace the bees, but we can’t replace beekeepers with 40 years of experience,” says **Tim Tucker**, vice president of the American Beekeeping Federation. But all these are different issues from whether bees are dying off in unprecedented numbers, and what is causing the losses.

Moreover, even 30% losses do not mean bees are on the verge of extinction. In fact, “the number of managed honeybee colonies in the United States has remained stable over the past 15 years, at about 1.5 million” – with 20,000 to 30,000 bees per hive – says **Bryan Walsh**, author of the *Time* article.

That's far fewer than the 5.8 million managed U.S. hives in 1946. But this largely reflects competition from cheap imported honey from China and South America and "the general rural depopulation of the U.S. over the past half-century," Walsh notes. Extensive truck transport of managed hives, across many states and regions, to increasingly larger orchards and farms, also played a role in reducing managed hive numbers over these decades.

CCD cases began spiking in the USA in 2006, and beekeepers reported losing 30% to 90% of the bees in many hives. Thankfully, incidents of CCD are declining, and the mysterious phenomenon was apparently not a major factor over the past winter. But researchers are anxious to figure out what has been going on.

Both Australia and Canada rely heavily on neonicotinoid pesticides. However, Australia's honeybees are doing so well that farmers are exporting queen bees to start new colonies around the world; Canadian hives are also thriving. Those facts suggest that these chemicals are not a likely cause. Bees are also booming in Africa, Asia and South America.

However, there definitely are areas where mass mortalities have been or remain a problem. Scientists and beekeepers are trying hard to figure out why that happens, and how future die-offs can be prevented.

Walsh's article suggests several probable culprits. Topping his list is the parasitic ***Varroa destructor mite*** that has ravaged U.S. bee colonies for three decades. Another is **American foulbrood bacteria** that kill developing bees. Other suspects include small hive beetles, viral diseases, fungal infections, overuse of miticides, failure of beekeepers to stay on top of colony health, or even the stress of colonies constantly being moved from state to state. Yet another might be the fact that millions of acres are planted in monocultures – like corn, with 40% of the crop used for ethanol, and soybeans, with 12% used for biodiesel – creating what Walsh calls "deserts" that are devoid of pollen and nectar for bees.

A final suspect is the **parasitic phorid fly**, which lays eggs in bee abdomens. As larvae grow inside the bees, literally eating them alive, they affect the bees' ability to function and cause them to walk around in circles, disoriented and with no apparent sense of direction. Biology professor **John Hafernik's** San Francisco University research team said the "zombie-like" bees leave their hives at night, fly blindly toward light sources, and eventually die. The fly larvae then emerge from the dead bees.

The team found evidence of the parasitic fly in 77% of the hives they sampled in the San Francisco Bay area, and in some South Dakota and Central Valley, California, hives. In addition, many of the bees, phorid flies and larvae contained genetic traces from another parasite, as well as a virus that causes deformed wings. All these observations have been linked to colony collapse disorder.

But because this evidence doesn't fit their anti-insecticide fund-raising appeals, radical environmentalists have largely ignored it. They have likewise ignored strong evidence that innovative neonicotinoid pest control products do not harm bees when they are used properly. Sadly, activist noise has deflected public and regulator attention away from *Varroa* mites, phorid flies and other serious global threats to bees.

The good news is that the decline in CCD occurrence has some researchers thinking it's a cyclical malady that is entering a downswing – or that colonies are developing resistance. The bottom line is that worldwide trends show bees are flourishing. "A world without bees" is not likely.

So now, as I said in a previous article on this topic, we need to let science do its job, and not jump to conclusions or short-circuit the process. We need answers, not scapegoats – or the recurring bee mortality problem is likely to spread, go untreated or even get worse.

Author Paul Driessen senior policy advisor for CFACT



If you are like me and hardly know one plant from another then I strongly suggest you come to the next meeting where we have been fortunate enough to get Gavan Jamieson who is going to tell us how to recognise the best pollen and nectar producing flora in Victoria.

With a clear power point presentation this should be an ideal medium to learn just what plants and trees are best for bees.

Beginners Courses.

Since October 2015 the club has conducted 3 beginners course with the new syllabus and in that time 55 participants have either completed the course or currently participating. The new course encompasses 3 theory /practical nights and 1 hands on hive interaction session.

I welcome all those participants as new members and trust they will gain assistance, knowledge and friendships from within the club.

The training committee is planning more courses to include intermediate level for existing members and an advance Queen breeding course all of which details will be given as the times approach.

It is our aim to be seen as the proactive club in training in the fundamentals of beekeeping and community awareness of bees and the encouragement of responsible beekeeping in the wider community.

Please do not hesitate to contact any committee member if you have an idea for future training days or community awareness programs.

Capilano visit.

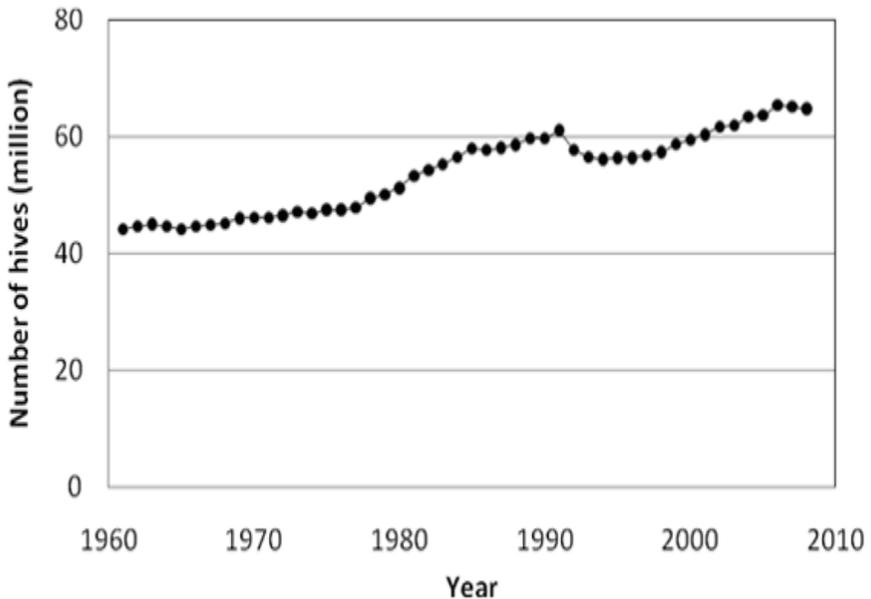
By now hopefully all members are aware that the planned Capilano visit has been changed to a visit to McDonalds Honey Castlemaine. To those of us who went to McDonalds 2 or 3 years ago will remember what a great day and what hospitable hosts Bob and Eileen are and this day Bob tells me will be even better! (nowhere as cold as the last visit)

Bob and Eileen have accepted the offer to join us at lunch at the 5 flags Hotel so Bob can keep answering all your questions.

I will give details of transport times and pick up locations in an email before the next club meeting and again at the club meeting.

What effect has *Varroa* had on the number of managed bee hives in other countries?

The number of managed honey bee hives in the world from 1961-2008 (FAO Stat, 2011).



Varroa had no perceptible effect on the number of hives reported in Europe. The number of honey bee hives in Europe declined sharply in the early 1990s, coinciding with the end of communism, and the end of state support for beekeepers, in the previously communist bloc countries of Eastern Europe. The number of hives reported in Western European countries remained unchanged over the same period of time.

From <http://www.daff.gov.au/animal-plant-health/pests-diseases-weeds/bee/honeybees-FAQs>

Uses of Beeswax

- ✓ Prevents bronze items from tarnishing
- ✓ Covering cheeses and preservatives to protect from spoilage.
- ✓ Conditioner for wood bowls and cutting boards.
- ✓ Coat nails and screws to prevent wood from splintering.
- ✓ Used by NASA with an enzyme to mop up oceanic oil spills.
- ✓ Molten beeswax to polish granite counter tops.
- ✓ To make crayons.
- ✓ Sewing, to strengthen the thread and prevent snagging.
- ✓ To fill seams between pieces of slate when setting up a pool table.
- ✓ To make Dental floss.
- ✓ To coat the hemp strings on Bag Pipes.
- ✓ Chewing beeswax can help quit the habit of smoking.



Registration as a beekeeper

I remind both the newer members and other members that anyone who keeps one or more hives of bees is required to register with the Department of Economic Development, Jobs, Transport and Resources (DEDJTR) as a beekeeper.

Registration enables the department to conduct disease prevention and control programs for the benefit of beekeepers. This includes the mailing of helpful information from time to time.

There is no charge for registration when a person keeps at least one hive but not more than 5 hives and registers online using the DEDJTR website.

<https://dpi.payments.com.au/beekeeper>.

Opening the hive

Honey bees are relatively manageable when the following conditions occur:

- the weather is fine; air temperature is about 16°C or above and there is no strong wind.
- there is good daylight – avoid very dull periods.
- bees are flying to and from the hive.
- foragers returning to the hive may have pollen pellets on their hind legs.

The following points provide a guide for opening the hive and examining combs:



- stand at the side of the hive so that sunlight shines over your shoulders. When examining a comb, this position allows the sun to shine directly into the cells.

- direct 5 to 6 puffs of smoke into the hive entrance so that the smoke circulates inside the hive. Never open a hive unless smoke has been

applied.

- wait about one minute for the smoke to reach its maximum effect, then direct a few more puffs into the entrance.
- use the hive tool to lift the cover (lid) about 20 mm at one corner and direct three to four puffs of smoke over the hive mat (if present) or top bars of the frames.
- remove the lid and the hive mat and at the same time direct a few puffs of smoke between the frames.
- use the hive tool to separate one of the side frames (next from the hive wall) and the adjoining frame.
- lift the side frame out of the box and stand it on end at the opposite front corner so that it does not block the hive entrance and obstruct forager bees. There is now room to separate the remaining frames and remove them to inspect the combs as necessary. Failure to separate frames will result in bees being rolled and crushed as each frame is lifted out of the box. This will cause bees to become angry.
- apply more smoke when bees gather on the top bars of frames and suddenly fly up towards. This behavior indicates that the beneficial effect of smoke has

mostly worn off. Direct some smoke around the top bars to ensure the bees remain manageable.

When a hive of two or more boxes is opened, it is best to put the supers on an upturned cover placed near the front of the hive but not directly in front of the entrance. Using the hive tool, lift the super about 20 mm at one corner and direct a few puffs of smoke between the two boxes and then remove the box.

Inspect and/or manipulate combs in the bottom box first. Inspection of combs in the super before it is removed from the hive will in many cases result in bees moving from the super to the bottom box. When the bottom is attended to, the bees are unnecessarily agitated.

Reassembling and closing the hive is done in the reverse order. Smoke may be used to direct and move any bees that might otherwise be squashed when the hive lid and boxes are returned to their position.
(Acknowledgement to DEPI Vic for text component.)



Honey bees have 170 odorant receptors, compared with only 62 in fruit flies and 79 in mosquitoes. Their exceptional olfactory abilities include kin recognition signals, social communication within the hive, and odour recognition for finding food. Their sense of smell is so precise that it could differentiate hundreds of different floral varieties and tell whether a flower carried pollen or nectar from metres away.

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