



Beekeepers Association of the ACT

PO Box 1482, Woden, ACT, 2606

Newsletter of the Beekeepers Association of the ACT Incorporated

Website: www.actbeekeepers.asn.au

Meetings of the Beekeepers Association of the ACT Inc are held on the second Thursday of the month at 7.30 pm at the CIT, Heysen Street, Weston in Building A

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April 2009

Next Meeting

The next meeting will be held on April 9. The guest speaker will be Zachary Huang, an Associate Professor at Michigan State University, who will speak on "**Varroa mite research at the Michigan State University honey bee laboratory.**"

See the box on page two for more about Prof. Huang and his work.

The Thursday meeting will commence at 7.30 pm with the AGM. This will be followed by ‘Beeginners’ Corner and the Guest Speaker. Supper will be available following the Guest Speaker’s presentation.

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Notice of AGM

The AGM will be held next meeting, April 9 at 7.30 pm, prior to the Beeginners Corner. All offices will be declared open. Please consider offering your services. The start-up level of committee person is ideal for those who have limited time or consider themselves inexperienced but willing to learn.

President’s report

Happy Autumnal (March) Equinox to all of you for 20 March 2009 (10.45pm)!

Wikipedia tells me that ‘an equinox occurs twice a year, when the tilt of the Earth’s axis is inclined neither away from nor towards the Sun, the Sun being vertically above a point on the Equator. The term *equinox* can also be used in a broader sense, meaning the date when such a passage happens.’

Having passed the equinox by 12 days, the Northern Hemisphere is tilting towards the Sun, and the South is tilting away. Have you noticed the drop in temperatures since that date? You probably haven’t, because there is a bit of a time lag, and so I’m just imagining it!

Anyway, in the past, the March equinox determined how the date for Easter Sunday was reached:

Easter Sunday is the Sunday following the Paschal Full Moon (PFM) date for the year. In June 325 A.D. astronomers approximated astronomical full moon dates for the Christian church, calling them

Ecclesiastical Full Moon (EFM) dates. From 326 A.D. the PFM date has always been the EFM date after March 20 (which was the equinox date in 325 A.D.). (taken from <http://users.chariot.net.au/~gmarts/easter.htm>).

On a current and Earthly note, Jennifer Woodley-Beattie, with assistance from Lyn and Pat Shiels, coordinated the Association's stall at the Canberra Harvest Festival on March 28th, here in Canberra. All reports are that it was a great success, and there was much interest from members of the public. I'm very sorry I could not be there for the stall. There is a report later in this newsletter. Thanks so much to all those members who participated.

And here is the last reminder for the Annual General Meeting on Thursday 9 April. Come along and stage a coup, and kick the current members off the Committee. Of course, that will mean that you have to stand for election yourself.

After the meeting we will have our guest speaker, Associate Professor Zachary Huang from the Michigan State University USA, speaking on varroa mite research at the Michigan State University honey bee laboratory.

See you at the AGM.

Angie O'Neil

Zachary Huang attended college in China. In 1983 he won a national scholarship to study honey bee biology in Canada obtaining his Ph.D. at University of Guelph, Ontario, Canada in 1988. After a short postdoc at University of Missouri-Columbia, he studied honey bee division of labor with Prof. Gene Robinson at University of Illinois at Urbana-Champaign for eight and half years. He started his own lab as an assistant professor in apiculture at Michigan State University Nov 1998 and became a tenured associate professor in 2004.

In Michigan he performs extension teaching and research related to honey bees and beekeeping. He is the webmaster of a popular web site on bees, <http://www.cyberbee.net> (with over 6 million hits per year) and teaches two courses (insect physiology, and apiculture and pollination). His accomplishments include: establishment of a model of division of labor which led to the eventual chemical identification of the third primer pheromone in honey bees, cloning and sequencing of the sodium channel gene of the Varroa mite, invention of a new device (<http://www.mitezapper.com>) for varroa mite control.

His current research includes varroa mite reproductive biology, biology of *Nosema apis* and *Nosema ceranae*, effect of long distance transportation on honey bee biology and behavior. Zachary received the James I. Hambleton Award for Research Excellence in 2008 from the Eastern Apicultural Society. Zachary is also an avid "beetographer," with nearly two dozen honey bee images published as cover photos on various scientific and trade journals, his photos of bees and people also won various awards (<http://www.beetography.com>).

Clearing bees from stickies

Problem: you have extracted honey about a week ago, two boxes from the same hive. You put the boxes back to be cleaned up. You now want to remove the cleaned up stickies for storage over winter but find the boxes are chock-a-block full of nurse bees. You have a heart for these dear little things who probably have never been outside and are apt to get lost. You would like them to just leave on their own accord and easily find their way home.

Solution: provide the box with its own base board and lid and place it beside the hive with entrances close together. Leave until dusk at which time they will have come to terms with their new situation and left for home.

Sad aftermath: A small cluster outside the hive over night; they couldn't all fit in their reduced home.

Beehive wanted for a Watson garden. Phone Brett or Steph 62475320

A Busy Swarm Season

Lyn Shiels writes from her perspective as a major collector of swarms in the Canberra region

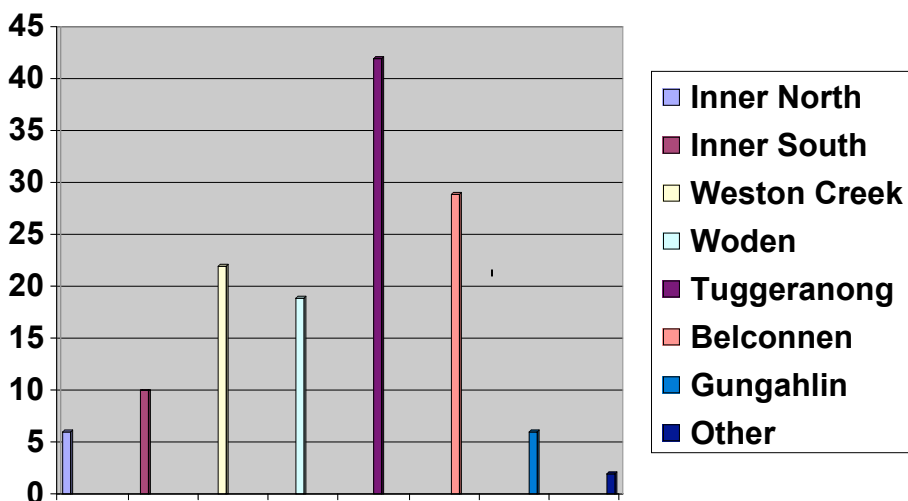
Many hives in Canberra came into spring extremely strong after the comparatively warm winter when many ironbark and other trees bloomed. The swarm season began almost a month earlier than usual and there were many more calls than usual.

In the 2008-2009 season we made 137 calls related to bee problems and collected 96 swarms and 33 feral hives. The remaining calls were to bees that had absconded, moved into walls, were feeding on plants or drinking from flower pots etc. The calls were made to 48 different suburbs and two rural areas. Kambah takes the prize for the most with 14 calls but it is a much bigger suburb than the average.

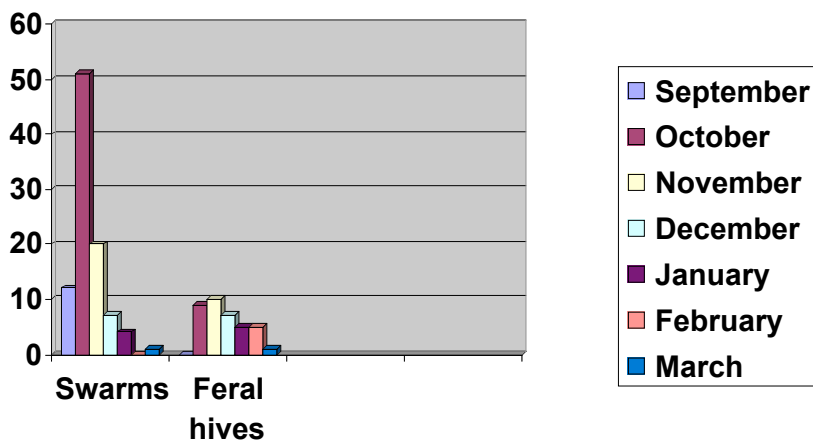
Some feral hives had only been there a few days and could be treated as a swarm while others were well established with large amounts of brood and honey. The most common locations for feral hives were compost bins (18) followed by boxes and furniture left in carports, sheds or verandas (6). The most unusual was in a trash pack and the messiest in a pit surrounding the water meter.

Trees and bushes accounted for 57 swarms. Others were on fences, under trampolines, in letter boxes and under children's play tables. Most unusual was the one on the back spoiler of a car window and the one under the barbecue, exactly the same situation of the photographs of a hive circulating by email earlier this season.

Swarms by Area (For b&w copy readers, the graphs are displayed in order, with 'Inner North' and 'September' on the left)



Swarms and hives by month



Honeyed Hot Cross Buns

1 tablespoon HONEY	1/2 teaspoon salt
4 cups plain flour	1 egg
2 teaspoons yeast	1 teaspoon mixed spice
1 cup milk	100 grams sultanas

Cream yeast and honey. Warm milk and pour in beaten egg. Sieve flour, salt and spice into basin and warm. Make well in centre, pour in yeast and milk mixture and mix to a smooth dough. Allow to rise 1 hour in a warm place. Knead in sultanas lightly on a floured board. Shape buns (one dozen) and mark cross with floured knife. Allow to rise for 15 minutes. Bake at 220 deg. for 15 to 20 minutes. Brush with glaze made from 1 teaspoon honey and 2 tspns warm water.

Honeybee buzz attenuates plant damage by caterpillars.

This is the title of a paper by *Jurgen Tautz* and *Michael Rostas* in the December 08 issue of *Current Biology*.

The summary explains that the two most important relationships between insects and plants are: (1) insects pollinating plants and (2) insects eating plants. But what about these two types of insect interacting among themselves?

As examples, the researchers remark that honeybees are dominant as pollinators while caterpillars are very efficient plant despoilers.

Despite the long and intense study of honeybees, however, indirect effects of honeybees on other food web members have hardly been assessed. The scientists report on a newly discovered link that connects these two ecological functions: honeybees merely flying around vegetation significantly reduce plant destruction by caterpillars.

Apparently the buzzing of the honeybees is just at the right frequency to cause the hairs of caterpillars to vibrate. They don't like it and either freeze or drop off the leaves they are eating. The researchers found that honeybees in the vicinity of capsicums could cause at least a 50% reduction in damage.



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Article by Anna Evangeli in *Gardening Australia* April 09 edition.

CCD makes it to *Scientific American*

The April 2009 issue of the prestigious science magazine *Scientific American* contains a beautifully illustrated and informative eight page summary of Colony Collapse Disorder. There is no new announcement, no breakthrough, nothing we already do not know. But the article by D. Cox-Foster and D. vanEngelsdorp serve as an authoritative benchmark as to where we are at with this baffling problem.

Professor Diana Cox-Foster is an entomologist at Pennsylvania State University. She is a co-director of the working team on CCD made up of experts from government and academia. Dennis van Engelsdorp is acting state apiarist for the Commonwealth of Pennsylvania and senior extension associate with Prof Cox-Foster. Both have family backgrounds in beekeeping.

In a nutshell the conclusion is given: 'many suspects, no convictions yet'. Four prime suspect contributory factors are singled out: 1. chemicals - as many as 170 different synthetic chemicals have been found in both sick and healthy colonies; 2. Varroa mites - but collapsing colonies do not have significant infestations; 3. parasites - e.g. some collapsing colonies were infected by *Nosema apis*; 4. Israeli acute paralysis virus (IAPV)- produces

symptoms similar to those of CCD, occurs in most CCD colonies examined. However IAPV is widespread in the USA and not all infected hives had CCD. It is thought that if IAPV causes the final blow to a colony, it would be after the colony had been already weakened by one or other of the remaining suspects, or by poor nutrition.

‘Many beekeepers have had some success at preventing colony loss by redoubling their efforts at improving their colonies’ diets, keeping infections and parasites such as varroa and nosema in check, and practicing good hygiene.’

April reminders

Autumn shutdown

We call it an Autumn shutdown because, around Canberra, we don't usually open the hives between Anzac Day and September 1. The things to check at this time of year are:

- Strength of colony. Bees should cover about 6 frames. If they don't it is unlikely the bees will be able to maintain the temperature within the hive to survive the winter. Weak hives can be combined using the newspaper method, but check for disease before combining.

- Stores. The stores they need will vary from season to season. Sometimes the bees in town can collect a bit of thin nectar during the winter. As a rule of thumb, leave each hive with a full box of honey. Hives light on food should be fed sugar syrup, or even dry sugar. Only use white sugar or caster sugar. You can find more information on feeding on the Association website.

- Location of hives. Select a dry sunny position protected from prevailing winds. Damp and lack of ventilation cause more problems than cold. Bees can cluster to keep warm but damp causes mildew which can set the hive back and cause other diseases like nosema or dysentery.

Try to keep any handling to a minimum at this time of year because the bees are less friendly, and robbing is more of a possibility. Minimise the time you keep the hive open and keep anything with honey covered.

Dick Johnston

The Quiz

Remember! The last unanswered question was: **Which eucalypt can be identified solely from its leaves and has a botanical name inspired by its shape. Additional clue: according to an unconfirmed report it was the first eucalypt ever described, and by a French man who never visited Australia?**

Let us pat ourselves on the back! Not only did we get an answer but we got the right answer. Congrats Bob Shaw. See ‘letters to the editors’ for Bob’s cogent response.

Letters to the editors

Dear editor,

Just thought I'd correct an error in this item of the current ACT Beekeepers newsletter (i.e. March issue). The chairman of the R&D committee is Des Cannon, not Des Cameron. Most ACT beekeepers would be aware of this, but perhaps some of our interstate or overseas readers would not.

The second/third eucalypt sought by the quizmaster is *E. obliqua* or messmate stringybark/broadleaved messmate. This is the first eucalypt described by French botanist, Charles-Louis L'Heritier, from a collection made by botanist David Nelson, on James Cook's third Pacific voyage in 1777, at Bruny Island Tasmania.

It is distinctive in that the leaf margins are asymmetrical at their base, they do not form a continuous line across the leaf stalk (as can be seen in the photo). This is, however, not a definitive guide to the identity of this tree, since asymmetry is common in the leaves of eucalypts.

refs. *Honey and Pollen Flora* : Clemson; *Eucalyptus, An Illustrated Guide to Identification* : Brooker and Kleinig; Website, *Euclid*



Bob Shaw

Field day

Wednesday July 8 at the University of Western Sydney, Richmond. Free entry. This is the field day foreshadowed in our last newsletter, to be hosted by the Honey Bee R and D Council (HBRDC). Full details will be published in the next issue of HBRDC News. Continue to watch this space.

Harvest Festival

The ACT Beekeeping Association had a stall at the Canberra Harvest Festival this year. There was heaps of interest shown by most attendees, with the live hive as usual providing the biggest attraction. The information boards (recently updated by Lyn & Pat) were perused with great interest and there was much questioning and of course loads of information provided for quite a few interested prospective beekeepers.

People eagerly tried different varieties of Honey at the Honey Tasting table, and subsequently bought lots of Honey from our sales table.

I would like to thank Lyn & Pat for once again filling the display hive, and also for all their hard work on the day along with Shirley & Peter and Luke and Andy, in setting up the gazebo, tables and displays, and also for manning our stall and talking with such enthusiasm to all comers.

Jennifer Woodley-Beattie



Luke sells honey while Shirley discusses and Lyn arranges

ABK Digest

What will they be up to next

From *tomos*, which means 'slice', comes tomography and then computer aided X-ray, tomography which we know as CT scanning. For humans this involves a tunnel-like machine in which your body is slid slowly through while an X-ray source travels in a circle around you taking pictures of slices of your body. The end result is a marvellously detailed 3D picture of your insides.

Now imagine all this technology centred on a bee. Such is the new field of microCT pioneered by Australians Marc Greco, Allan Jones, Robert Spooner-Hart and Paul Holford. These fellows hail from the Universities of Sydney and Western Sydney. Their enterprise and innovation has earned them the Eva Crane Memorial Award for 2008. This award is for the best, most innovative and scientifically exciting article published in the Journal of Apicultural Research, which is an international peer reviewed journal.

The Australians were clear winners.

Although microCT is similar in principle to ordinary medical CT, the former is able to achieve resolutions down to a few micrometers. This combined with specific software has enabled Marc Greco to develop a new technique of Diagnostic Radioentomology for looking inside insects without damaging them. It also enables scientists to examine in detail ancient insects captured in amber in a non-invasive manner. Further recent refinements have led to NanoCT imaging.

New electronic journal launched

The International Bee Research Association is proud to announce the launch of 'The Journal of ApiProduct and ApiMedical Science' (JAAS) which will cover research on the six main hive products: honey, pollen, propolis, wax, royal jelly and bee venom. It will publish research on the biologically relevant properties and substances of these products.

The journal aims to provide a forum where the efficacy and effectiveness of bee products with therapeutic properties can be presented, debated and evaluated using scientific principles.

<http://www.jaas.org.uk/>