

The CROSS-POLLINATOR

Issue 17, December 2020

Newsletter of the
Australian Native Bee Association

<https://australiannativebee.org.au/>

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Original articles, new information and news
from the world of native bees.



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FEATURE ARTICLE

If honey bees decline, Australian native bees can secure apple pollination in NSW

By Olivia Bernauer

Olivia collecting data on pollen deposition in Pink Lady Apple. She has presented a bagged flower to a native *Lasioglossum* halictid bee and allowed the bee to visit. After the bee departs, the number of apple pollen grains left behind are counted.



The **Australian Native Bee Association Inc** promotes the conservation and sustainable use of all Australian native bees. ANBA achieves that by providing resources, disseminating information, supporting members and communicating with stakeholders.

Disclaimer The Cross-Pollinator is a forum to people to express their views and observations. The author of each article is responsible for the statements expressed within; their opinions are not necessarily those of the ANBA.

Message from the Management Committee

Dear members,

Australian Native Bee Association Management Committee would like to thank all our members, volunteers, partners and supporters for their ongoing commitment and support this past year. *Wishing you the joy of family, the gift of friends, and spectacular success rearing your bees in 2021.*

AGM

Our AGM was held on 6 December. As has become normal in 2020, it was a mix of in person and virtual attendees. We elected the new National management committee, see the box below. There is a good mix of continuity and some fresh blood. Welcome to Ian Driver, Steve Flavel, Tobias Smith, and Lachlan Driver. Farewell and deep thanks to Trevor Weatherhead and Wayne Bery. Trevor brought much experience and Wayne much technical capability during our start up years. We also voted for some changes to our Rules. We received reports from the president, the branches, the honey sub-committee. The financial report was received and the

membership fees were set for next year (no change). For a full report of the meeting, see page 11.

New survey

The Rural Industries Research & Development Corporation (AgriFutures Australia) wishes to calculate the Gross Value of Production of emerging industries, including the native bee industry by surveying beekeepers, advisors and processors. We encourage our members to participate. AgriFutures Australia has already funded a project on stingless bee honey which will generate much value to us. Future projects may depend on having an estimate of the current value and potential of our fledgling industry. This is separate to the survey done by Western Sydney University this year. If you are involved in the industry and would be willing assist by taking part in a survey, see full notice on page 8.

Should you qualify to take part, you will be compensated with \$100 for your time upon completion.

Warm regards from the Management Committee: Tim, Dan, Ian, Peter, Lachlan, Steve, Kit, Toby, Dean, Diane, Martin, Mark and Tony

Australian Native Bee Association Inc., Management Committee

All members of the Management Committee would be happy to hear from you with questions, suggestions etc.

Secretary: Ian Driver, Email: sec@australiannativebee.org.au

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Mid-north Coast Branch Representative: Diane Norris, diane.beewild@gmail.com

FEATURE ARTICLE

Each monthly issue of CROSS-POLLINATOR includes an original article. This month is by Olivia Bernauer. Olivia has had a life-long love of flowers, beginning as soon as she could walk and talk. It's only natural that as Olivia has pursued a career in research, she's found herself working with bees and the flowers they rely on for food. Olivia enjoys working in agricultural settings to investigate how pollinators and their ecology can impact crop

yields and quality. For her PhD at the Hawkesbury Institute for the Environment at Western Sydney University, she studies apple pollination in Bilpin and Orange, NSW to try to better understand which pollinators are the most important for ensuring apple yields. Prior to her PhD, Olivia researched cranberry and apple pollination in her home state of Wisconsin (USA), and for her master's at the University of Maryland (USA) she conducted a citizen science project to investigate which flower species are valuable for bees in Maryland.

IF HONEY BEES DECLINE, AUSTRALIAN NATIVE BEES CAN SECURE APPLE POLLINATION IN NSW

BY OLIVIA BERNAUER

o.bernauer@westernsydney.edu.au

In Australia and across the globe, the most common pollinator of apple flowers is the honey bee (*Apis mellifera*, right). Though not native to Australia, honey bees are effective pollinators of apple flowers. However, in most parts of the world, the spread of the parasitic varroa mite and the viruses it carries has devastated honey bee populations. Currently, Australia is one of the few remaining locations without an established population of varroa mites. While this is positive for current honey bee populations, it is likely the varroa mite will establish here, which could severely limit both feral and commercial honey bee numbers, threatening pollination services and ultimately food production in Australia. Thankfully, there are approximately 2,000 species of bees that are native to Australia, which are not vulnerable to the varroa mite, as this parasite is specific to bees in the genus *Apis*. These native bees and other wild pollinators, such as hover flies, do visit apple flowers (Figure 2) and my PhD has focused on developing a better understanding of these alternative pollinator species.



Figure 2: Native bees visiting apple flowers (left to right: *Exoneura robusta*, *Tetragonula carbonaria*, *Homalictus* sp.)

Which bees are the most common and efficient pollinators of apple?

My work took place in two apple growing regions in NSW: Bilpin and Orange. Bilpin is situated between Wollemi National Park and the Blue Mountains National Park, with lots of natural, high-quality bushland surrounding the orchards. In contrast, Orange is located in a highly agricultural area, with many orchards surrounded by paddocks. As the surrounding landscape varies between locations, the bees that visit apple flowers also vary. In Bilpin, the stingless bee (*Tetragonula carbonaria*) rivals the honey bee for the title of most frequently encountered apple flower visitor, and in some years outnumbers the honey bee. Following the honey bee, allodapine or reed bees (*Exoneura* spp.) are common along with some halictid bees (*Lasioglossum* and *Lipotriches* spp.). Though we infrequently encountered the green carpenter bee (*Xylocopa (Lestis) aerata*), it was always exciting to hear one buzz by. In contrast, in

Orange, the honey bee dominated Pink Lady apple flowers with various halictid bees (*Lasioglossum* and *Homalictus* spp.) making up the majority of the other bee visitors.

I was particularly interested in understanding which bees were the best apple pollinators, namely, which species carried the most apple pollen on their bodies and which species deposited the most apple pollen after visiting an apple flower. To quantify pollen carried on the bodies of bee visitors, I collected insects directly from apple flowers and then removed all loose pollen from their bodies with tape. The tape was mounted on a microscope slide, then up to 300 pollen grains per slide were counted and identified as either apple or non-apple pollen. My preliminary results indicate that bees carried more loose pollen on their bodies than other flower visitors, such as flies or beetles. Of the bee visitors, the eusocial bees, honey bees and stingless bees, carried more pollen than other bee visitors (*Exoneura* sp. and halictids, Fig. 3).

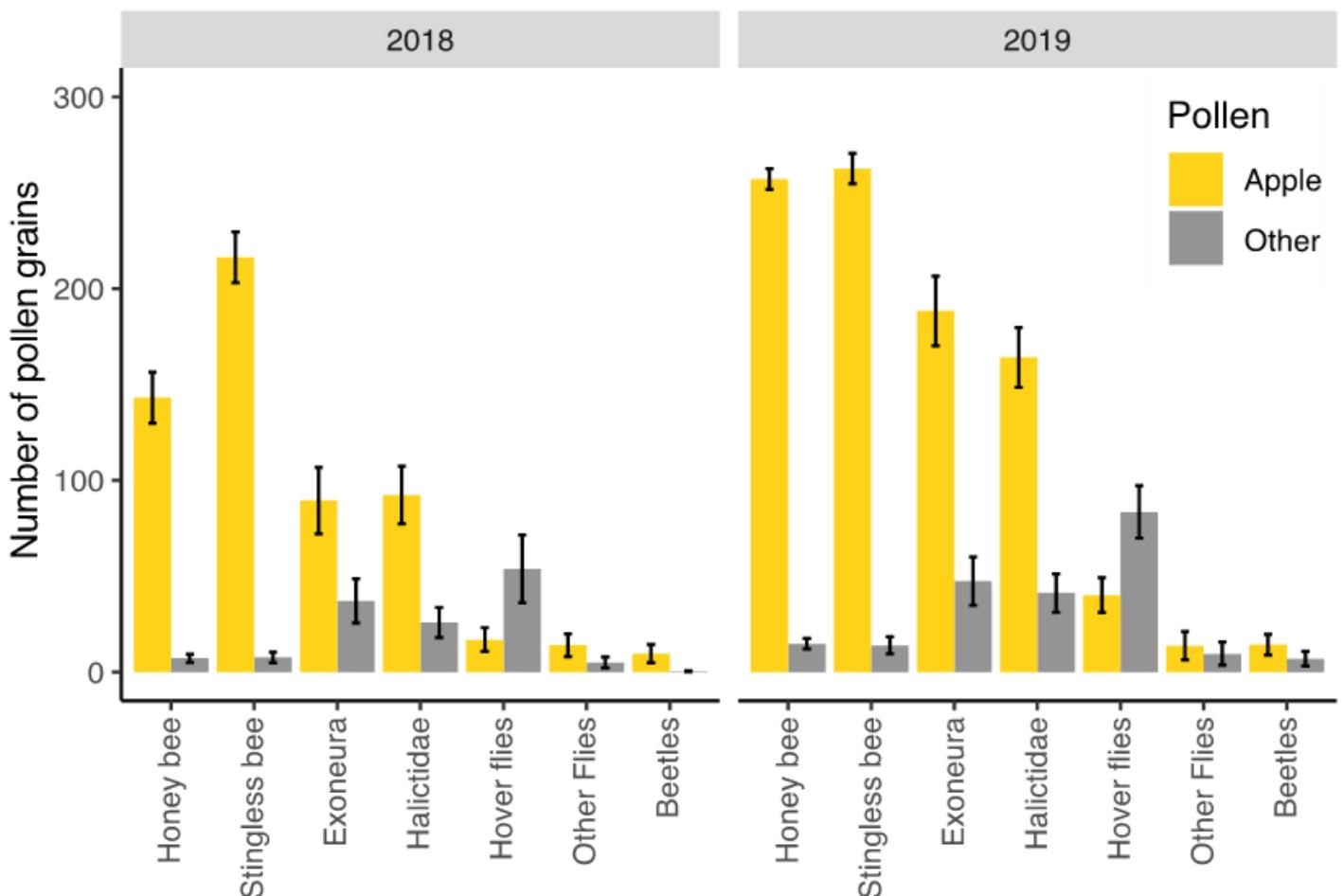


Figure 3: Paired bar graphs of the average number of crop (yellow) vs. non-crop pollen (grey) grains present on the bodies of insect visitors to Pink Lady apple flowers in 2018 and 2019.

To evaluate pollen deposition, I put bags over flowers just before they opened, and once open, I presented them to an individual pollinator. After the insect left, I removed the female reproductive parts of the flower, the stigmas, mounted them on a microscope slide and counted the number of apple pollen grains left behind. Preliminary results from 2019 and 2020 indicate that after a single visit, *Lasioglossum* sp. deposits the most pollen (118 grains per visit on average) followed by *Exoneura* sp. (105 grains) then honey bees, averaging 90 grains with stingless bees only averaging 59 pollen grains per visit.

I next wanted to investigate how pollinators were interacting with apple flowers to see if their on-flower behaviour could affect pollination services. For example, if a bee visits the apple flower from the top, it is more likely to contact the reproductive parts of the flower than if it visits from the side, only stealing nectar (Figure 4).

To study this, I used video cameras to record insect visits to apple flowers. Later, I viewed the footage and documented on-flower behaviours, including what resource bees foraged for and whether they contacted the female reproductive parts of the flower, which is important for successful pollination. Based on my

preliminary results from 2018, honey bees primarily foraged for nectar (88% of visits) while stingless bees almost exclusively foraged for pollen (98% of visits). Two out every three honey bee visitors contacted the female reproductive parts of the flower compared with less than one in ten stingless bees.

Based on my preliminary evaluations of the pollen on bee bodies, pollen deposition, and foraging behaviour, the data indicate that in addition to honey bees, many other bee species also visit apple flowers and have the possibility to successfully pollinate apple. Of these other visitors, stingless bees are common in Bilpin and are often carrying large amounts of pollen; however, they are less likely than honey bees to contact the female reproductive parts of the flower and when they do, they deposit less pollen than other bee visitors. *Lasioglossum* bees and *Exoneura* allodapine bees also carry apple pollen on their bodies and when they visit a flower, deposit more apple pollen on stigmas than do honey bees, though these native bees are less common in apple orchards.

Preliminary analyses on these native bees indicate that if honey bee populations did decline, there are native bee pollinators, already contributing to apple pollination, with the opportunity to make up for honey bee losses.



Figure 4: *Exoneura robusta* visiting an apple flower from the top (left) and side (right)

Nesting biology and social organisation of the allodapine bee, *Exoneura angophorae*

Beyond apple pollination, I have investigated the nesting biology and social organisation of the allodapine bee, *Exoneura angophorae* in the lower Blue Mountains. This species is commonly found in the Greater Sydney region and frequents apple flowers in Bilpin, where it collects pollen that is likely used to feed growing brood.

Allodapine bees (common name reed bees) are unique in that many species are socially flexible: individual nests have the ability to switch between solitary or social nesting strategies, which may change throughout the year. When it comes to nesting, allodapines create a single burrow where all offspring are reared together, instead of creating individual cell partitions like other sub-social and solitary bees (Figure 5).

The offspring are fed progressively, meaning they rely on their adult nestmates for food and survival. To investigate the annual life cycle and social hierarchy of this bee we collected complete nests of *E. angophorae* from the fallen fronds of tree-ferns (*Alsophila* and *Dicksonia* spp.) each month for one year (Feb 2018 – Jan 2019) and then documented the contents of the nest. We found that this population of *E. angophorae*, the first allodapine to be studied in the Greater Sydney area, is primarily social as over a year, colonies averaged just over two adult females per nest. This bee begins laying eggs in late autumn and continues laying eggs through winter. Larvae hatch in springtime, when apples are in bloom, and pupate in early summer, emerging as adult bees by late summer.

Acknowledgements: Research was supported by Hort Innovation Pollination Fund project PH15001: Healthy bee populations for sustainable pollination in horticulture and Western Sydney University.

Figure 5: A nest burrow excavated by *E. angophorae* in an *Alsophila* sp. tree-fern frond (left) and below an adult female *E. angophorae* visiting a waxflower (*Philotheca* sp.).



Adults and larvae of *Exoneura* in a hollow stem (Image: Tobias Smith)

In the feature article of Issue 12, July 2020, Michael Batley wrote about his experiences with native bees at field sites recently devastated by bushfires. Michael makes return trip six months later and reports on his observa-

tions. A season of good rainfall bring change and hope. Read Michael's original article here, <https://www.shorturl.at/prFT3>.

UPDATE ON FIRE RAVAGED FOREST

BY MICHAEL BATLEY

Earlier this year I reported on two sites that had been affected by the Gaspers Mountain bushfire in late 2019. Recent visits to each site have been very interesting.

One site on the Putty Road had lost most of its understorey but the crowns of larger trees had, in many cases, escaped severe damage. Among the trees that had survived was a small stand of *Angophora floribunda* that I reported was providing nectar for a large number and variety of bees that had managed to find refuge from the fire. Twelve months on the understorey is undergoing a spectacular recovery. *Dampiera*, *Pultenaea*, *Conospermum*, *Hibbertia* and *Scaevola* are putting on a magnificent display, but larger shrubs that dominated previously will require much longer to recover. *Leptospermum* are flowering, but at a greatly reduced level. *Isopogon* and *Callistemon* in the beds of ephemeral waterways have resprouted but have few flowers. The *Persoonia* that was dominant at this time of year has survived as scattered small shrubs. It will probably take many years for it to return in significant numbers.

The Newnes Plateau site was burnt to bare ground plus tree trunks burnt bare. As recently as last month, the only sign of life was some epicormic growth on the *eucalypts* and a low covering of green over the ground (right, top).

Today, however, the area was a sea of yellow *Goodenia* (right, bottom). Although there was not a large number of bees, I did find three *Goodenia* specialists. The first was *Leioproctus douglasiellus*. I had been anxious about whether they had managed to provision enough nests in the ground before the fire arrived. It took a couple of hours, but eventually I saw a possible candidate.

A sweep of the net, transfer to a plastic sandwich bag, and examination with a jeweller's lens confirmed that it was a female *L. douglasiellus*. Phew! I had been worried all year. When released she

flew straight to the nearest flower and continued the foraging that had been so rudely interrupted. Eventually I saw a second female and a male.

Another *Goodenia* specialist present was *Lasioglossum platytilum* (usually found west of Cobar) which has hair brushes on the forelegs of the female for manipulating *Goodenia* pollen. The third specialist was an unnamed *Megachile* species with crinkled hair on the face of the female that allows her to brush pollen from the flower's pollen presenter as she passes under it.

So the fires have produced changes. The populations of some flowers have exploded, while others will take years to return. The bush is always changing, but the effects of major fires bring it to our attention more dramatically. And the *Leioproctus douglasiellus* population near Sydney has survived!



Native Bee news

Invitation to take part in an industry survey

Dear Emerging Industries stakeholder,

As you may be aware, in the past we have asked industry to respond to Gross Value of Production (GVP) estimates as part of the application process for Emerging Industries funding and support. This requirement has enabled us to assist our understanding of the present status of your industry and potential growth of your sector in addition to validating assumptions from market research that has previously been conducted. A solid base line is paramount for accurate and consistent measurement of growth and success. We have found the existing AgriFutures measurement approach to obtain current industry value by self-statement from the applicants of funding can be inconsistent and highly qualitative way of obtaining a quantitative benchmark number. As a result we have invested in a project to undertake a combination of desktop research, meta-analysis of relevant publications and structured personal interviews with single respondents with representatives from Emerging Industries and key opinion leaders to improve the rigour in assessing GVP for new and Emerging Industries.

The three main objectives when running this pilot project are to:

- Calculate current GVP of selected Emerging industry sectors (with the potential to expand to more if the pilot is successful)
- Run the model on historical data to back cast historical

GVP where possible

- Collect contact details for the benefit of enhancing AgriFutures communications with Emerging Industries to enable ongoing engagement of Emerging Industries investments.

We have appointed Kynetec Australia, an independent market research company based in Australia, specialising in agricultural research to help with this project. Kynetec is part of the Australian Market and Social Research Society (AMSRS) and the European Society for Opinion and Marketing Research (ESOMAR) and as such must abide by all privacy and code of professional behaviour rules, which includes, but is not limited, to protecting the privacy of research participants. More information can be found by following this link <https://researchsociety.com.au/documents/item/2797>

Please contact Melinda Haley at Kynetec melinda.haley@kynetec.com with your approval to be contacted. If you feel you are not the person best suited or know of other contacts you feel should be contacted, feel free to reply with those details also. We are currently identifying contacts through various sources, in the public domain, linked to the emerging industries portfolio to invite them to participate, so be aware you may also be identified through other means.

Tom McCue, Senior Manager, Emerging Industries, AgriFutures Australia, tom.mccue@agrifutures.com.au

Discover Bees

When Bee Foundation has launched a Fund to discover and document Australia's remaining native bee species. The Fund will support an ambitious campaign by Taxonomy Australia to discover and describe all remaining Australian bee species over six years. An estimated 1650 species of native bees have been discovered and named in Australia in the last 200 years. Bee taxonomists estimate that another 1,000 species have not yet been discovered, named or documented. The DiscoverBees campaign aims to support the discovery and documentation of all remaining bee species over six years. This will require a 16-fold increase in the current rate of discovery, at a cost of \$600,000/year for 6 years (\$3.6 million). The benefits, from increased knowledge of Australia's native bees, and their opportunities for utilisation and needs for conservation, are likely to far outweigh the cost. Read more here, <https://www.wheenbeefoundation.org.au/our-work/discoverbees/>

For more about the project and to watch an hourlong webinar "Discovering Australia's Native Bees" featuring native bee scientists Dr Tobias Smith, Dr Rosalyn Gloag and Dr Ken Walker, go to <https://www.wheenbeefoundation.org.au/our-work/discoverbees/>. Toby Smith discusses our amazing bee diversity and the different 'families' that exist in Australia. Ros Gloag explains the special features and anatomy of the bee, the importance of pollination and how efficient native bees are, having co-evolved over millennia with our native flora. Ken Walker explains the classifications of bees and the importance of naming bees.



Honey testing

Dean Haley is working hard to fill missing knowledge gaps in the composition and microbiology of honeys from Australian stingless bees. Here is his update.

Hi All, In October through December I received honey samples of *Tetragonula* and *Austroplebeia* from Cooktown to Sydney. The samples come from a number of different people, using their own particular harvest methods. This is a survey of our honey in the true sense. I now have a refrigerator shelf full of honey of interesting colours. Some is almost a pale green. I keep my refrigerator at 2 to 4 degrees in compliance with food handling requirements. Most of the honey received is refrigerated, and recently harvested, though there is a few samples that are one to two years old, so we have some depth to our storage time. There are also a few samples that have been kept at room temperature for various numbers of years. It has been a great collaborative experience obtaining these honeys which have all been donated. I fear it is too close to Christmas to send these samples for commercial analysis (microbiology and physiochemistry) so i will wait for Jan 2021. We are almost there. This analysis will permit us to complete our last information table, and then we can get our submission in by the end of February. Fingers crossed.



Kind regards and wishing you all well in this festive season, Dean

New research on the queens of an Australian stingless bee

Congratulations to our Mexican amigo Francisco, for his brilliant new publication:

Irreversible sterility of workers and high-volume egg production by queens in the stingless bee *Tetragonula carbonaria*

Francisco Garcia Bulle Bueno, Rosalyn Gloag, Tanya Latty, Isobel Ronai

Journal of Experimental Biology 2020 223: jeb230599 doi: 10.1242/jeb.230599 Published 28 September 2020

Article

Figures & tables

Supp info

Info & metrics

PDF

PDF + SI

ABSTRACT

Social insects are characterised by a reproductive division of labour between queens and workers. However, in the majority of social insect species, the workers are only facultatively sterile. The Australian stingless bee *Tetragonula carbonaria* is noteworthy as workers never lay eggs. Here, we describe the reproductive anatomy of *T. carbonaria* workers, virgin queens and mated queens. We then conduct the first experimental test of absolute worker sterility in the social insects. Using a controlled microcolony environment, we investigate whether the reproductive capacity of adult workers can be rescued by manipulating the workers' social environment and diet. The ovaries of *T. carbonaria* workers that are queenless and fed unrestricted, highly nutritious royal jelly remain non-functional, indicating they are irreversibly sterile and that ovary degeneration is fixed prior to adulthood. We suggest that *T. carbonaria* might have evolved absolute worker sterility because colonies are unlikely to ever be queenless.

Bee Garden Challenge Competition

A Bee Garden Competition, initiated by Steve Flavel from Native Bee Hives attracted 46 entrants submitting 125 photos. 18 businesses happily and enthusiastically donated well over \$1000 worth of their products as prizes for the competition. Here is Steve's report.

The main objectives for the competition were to create new resources for native bees, but possibly equally important, to create activity and awareness around our native bees.

During the Covid restrictions it may have given some of us something to focus on and gardening is known as very beneficial for both mental and physical health. The native bee community is quite small in Australia, but a gardening competition crosses over to the garden community which is massive around the world so it draws new people across to develop an awareness and interest in native bees. Most people only know the European Honey Bee and don't even know there are "other bees".

To start with I only had one prize and that quickly grew from businesses wanting to be involved and sending me their products. A few of those businesses and people I know were also inspired to start their own gardens which were very impressive.

There were so many great entries it was difficult to choose the winners and I felt bad not being able to give everyone something for their efforts. Hopefully the native bees that are attracted to their new gardens will be their reward! (Cheesy?)

Prize winners:

1. Andrew Bray (Albury Permaculture, before and after images below)
2. Jennifer Holt
3. Christie Doven

Massive thanks to all these businesses for wanting to get involved and freely donating their products. The Auspost white van kept bringing me things. The only problem was I



couldn't keep anything!

- Sydney Stingless Bees – Children's book "Lovely"
- Hive Haven – Stingless Bee Honey and Pollinator Seed mixes
- Sugarbag Bees – The Australian Native Bee Books
- Bee Yourself – Bee kids sample bag
- Wide Bay Stingless Bees – Beard butter, Lip Balm, Lip Scrub
- Bee Prepared – \$100 Gift Voucher
- Spicers Hollow Native Bees – Stingless Bee stickers
- Meadow Flowers – Flower Seed Mix Packs
- Little Bees Secret Garden – Solitary Bee Hotel
- Krydasu – Pyrography Bee Wood Products
- Up On The Rooftop – Grow Pack
- Central Highland Native Bees – \$50 plant voucher
- Beecroft Bees & Botanicals – Glass Mosaics – Blue Banded Bees
- Northside Native Bees – Native Bee signed print
- BeeAwareKids – Native Bee T Shirt
- MBarnett Designs – Enamel Pins and Gift Cards
- Ripley Valley Native Bees – Framed Native Bee Print
- Native Bee Hives – Solitary Bee Observation Block
- Native Bee Hives – Australian Native Bee Ag Guide

More information about can be found at <https://www.nativebeehives.com/bee-garden-challenge/>



Native Bee Workshops, events & seminars

Members of ANBA are invited to promote their events, services and products in the Cross-Pollinator.

Please send details to comoff@australiannativebee.org.au.

Workshops and seminars

Workshops at Beezotted Bee shed Mooloolah Valley

COVID safe with small participant numbers

- January Saturday the 30th 9-1 pm
- February Tuesday 9th 9-1 pm
- February Saturday 27th

Cost \$55, includes fresh damper and cuppa

Gift vouchers available for workshops, new boxes, hives, sculptured log hives

Bookings by phoning Matthew Middleton 0499886899

Read an annotated review of Matthew's workshops here:

<https://www.nativebeehives.com/bee-zotted-with-matthew-middleton/>

Workshops on Stingless Beekeeping

By Dr Tim Heard and/or Dr Tobias Smith (Sugarbag Bees) Sugarbag Bees offer seminars and workshops. If you want to learn more generally about bees, especially stingless bees and beekeeping, come along to half and full day workshops held in various venues in Qld and NSW. The workshops are a mix of photographic slideshows and practical sessions. You will learn how to divide hives and extract honey, and use the bees for pollination. Attendance price varies. See here for an extensive series of educational events in Qld and NSW: <https://sugarbag.net/events>

The monthly live online events of the Australian Native Bee Association

To join simply go to the ANBA Facebook page at the date and time and you will see the Live event. <https://www.facebook.com/Australian.Native.Bee.Association>

The Live events are interactive, attendees can ask questions by typing them on the post during the live stream. Other events are pre-recorded and posted at the time advertised.

Some events are open to physical attendees. Book your tickets for physical attendance on our website (<https://australiannativebee.org.au/events>). All welcome, but please show your supporting by joining our association. <https://australiannativebee.org.au/join-us>

Upcoming events

We are taking a break in January but will be back in February. Keep your ommatidia peeled for events then.

Report of the last meeting

Hive exhibition and ANBA AGM combined event

Two events were held together on Sunday 6 Dec 2020: the AGM of the ANBA then the Hive Exhibition.

The Annual General Meeting of the Australian Native Bee Association

The AGM of the Australian Native Bee Association Inc. was held on Sunday 6 December 2020 at THECA, 47 Fleming Rd, Chapel Hill Q 4069 at 1-2 pm. Thirty-five attended in person with another 16 attending the Zoom meeting.

Congratulations to the new National management committee, see the box on page 2. There is a good mix of continuity and some fresh blood. Welcome to Ian Driver, Steve Flavel, Tobias Smith, and Lachlan Driver. Farewell and sincere thanks to Trevor Weatherhead and Wayne Berry. Trevor brought much experience and Wayne much technical capability, during our start up years.

We also voted for some changes to our Rules. The posi-

tion of president will become a rolling annual position. At the election of each new management committee, the president is not eligible for re-election but automatically assumes the position of past president. We expect that this regular change of leadership will help to keep the association diverse and responsive. We also hope the change will create interest among members for the job if it becomes an honour but not too great a commitment.

We received the Presidents Report, Branch reports from Brisbane, Rockhampton, Mid North Coast NSW, Sydney and Wide Bay and a report from the Honey Subcommittee

The Chair asked the Treasurer, Peter Stone, to address the meeting. Peter had prepared a budget using the current figures that showed a small predicted deficit of around \$400. A reduction in membership fees to Industry \$60, Standard \$30 and Concessional \$20 predicted a deficit of almost \$5,000. After a discussion, it was moved that the membership fees for the 2021-2022 financial year be kept the same at Industry - \$80, Standard - \$40 and Concessional - \$30.



Hive exhibition

Last year the much-anticipated annual Hive exhibition formed the closing event of the Australian Native Bee Conference and attracted some wonderful entries. This year we were back at the Hut, teaming up with the ANBA AGM, and live feeding to the world.

Nobody was disappointed by another spectacular range of exhibits. A total of 10 meliponists, carpenters and artists took the effort to bring their works and spruik them to a crowd both in person and online. Exhibitors were Dean Haley (3 entries), Giorgio Venturieri (2 entries), Peter Davenport (1 entry plus a colony of rare *T. davenporti*), Tim Heard, Brian Keeble (six entries including one from his friend Jane), Adam Smith (two entries), Tony Blackwell, David Gilbert (4 entries), Doug Irvine (2 entries).

The three newly appointed Committee Members acted as judges, thanks Steve Brownlie, Greg Shea and Jason Lasrus.

The **Categories and WINNERS** are:

- People's choice (secret ballot), WINNER: DOUG IRVINE, pictured right,
- Judges Choice, WINNER: ADAM SMITH, pictured far right,
- Best decorated hive, WINNER: JANE (displayed by Brian Keeble) for Big Ben hive cover,
- Best tool, device or accessory, WINNER: DAVID GILBERT, presenting in centre of image above
- Best Native Bee/ Insect Hotel, no submissions.

Prizes were donated by Sugarbag Bees.

The event was recorded for later viewing, <https://www.facebook.com/Australian.Native.Bee.Association/videos/1524179824444927>, this video starts with some branch business. Slide to about 10 minutes in for the start of the hive display.



Branch News

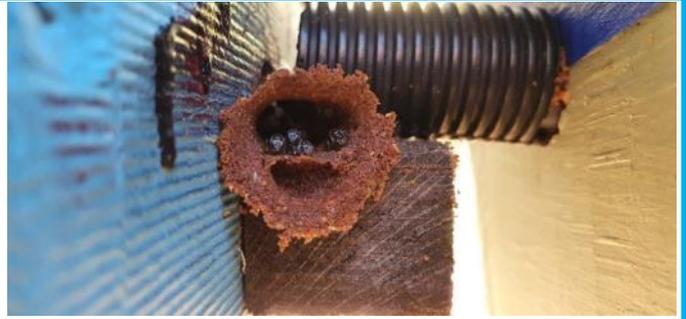
Gladstone Branch News

For obvious reasons, our group have not been very active over the past month but hopefully that is about to change with the New Year.

Our first priority now will be preparations for our Native Bee Workshop planned for 13th March. Details of the workshop and how to register will be released to the public soon.

I personally have a number of propagation hives which I connected up to existing hives a couple of months ago and initial all were working very well and I was very excited. Unfortunately probably due to lack of attention lately most of them seem to have found alternative entrances into their homes by excavating around the closed entrances and creating new entrances to bypass the boxes. Now that I have found a bit of free time, I have been attempting to seal these new entrances off and get them to once again go through the boxes so wish me luck. I wonder if anybody else is experiencing similar problems. Might be a subject for discussion at our next group meeting

For more info on branch activities, visit our Facebook page ANBA Gladstone Branch , Ian Anderson



Photos of one of these propagation hives showing how they were initially using the box entrance which has now been sealed off and the new entrance created



ADAM SMITH with his decorated hives with temperature sensors, at the Hive exhibition



Brisbane Branch News

We met on 6 December 2020 when we hosted the National ANBA AGM, see page 11. The Chair Dean Haley opened the meeting and welcomed attendees. The Treasurers report for the month was presented. Dean asked for more honey samples for the ANBA work on a food standard for native bee honey. The annual hive exhibition was held. See a full report on page 12.

Next Meeting: 1pm, 7 February 2021.

Wide Bay branch news

Next Meeting: Saturday 30th January 2021 2.30pm at Murray Smith's residence 18 Sunnybrae Circuit Redridge.

NEW Coffs Harbour Branch News

If you are interested in a Native bee workshop, followed by a Meeting regarding a ANBA branch for Coffs Harbour area, then keep this date free and wait for more information: 28 Feb 2021, 10 am - 3 pm, at the Coffs Harbour Botanical Gardens.

ANBA branches

Your Australian Native Bee Association Inc. (ANBA) is building a dynamic member-based organisation dedicated to protecting all native bees (not only stingless bees), protecting our members and providing great learning resources and social experiences. We are working with many to build a national network.

Current branches are Brisbane, Rockhampton, Gladstone, Wide Bay, Sydney and Mid North Coast NSW. Expressions of interest have come from Blue Mountains, Bathurst, Coffs Harbour, Canberra, Cairns, Gold Coast/Scenic Rim, Darwin and Adelaide.

For details about forming a local branch go here: <https://australiannativebee.org.au/Form-a-new-local-branch>.

Branch Executives and Contacts

Brisbane branch

Meet on the first Sunday of each month at 1pm. THECA Hall, Chapel Hill.

Chairperson: Dean Haley, josephhale67@gmail.com

Secretary: Ian Driver, ian.driver@qed.qld.gov.au

Treasurer: Peter Stone, treas@australiannativebee.org.au

Communications Officer: Wayne Berry, wberry@mysteryfog.net

Events coordinator: Tim Heard, pres@australiannativebee.org.au

Committee Members: Greg Shea, Steve Brownlie, Jason Laskus,

Representative to ANBA Management Committee: Dean Haley, josephhale67@gmail.com



Rockhampton branch

Chairperson: Martin Schlick, martin.schlick@googlemail.com

Treasurer: Murray Smith, dinmuz@bigpond.com

Representative to ANBA Management Committee: Martin Schlick, martin.schlick@googlemail.com

Gladstone branch

Chairperson: Mark Larney, larneys@internode.on.net

Secretary / Treasurer: Ian Anderson, iganderson50@bigpond.com

Events Co-Ordinator: Chris Fahey, chrisfahey80@yahoo.com and Doug Stephan, stephands@bigpond.com

Representative to ANBA Management Committee: Mark Larney, larneys@internode.on.net

Wide Bay branch

Chairperson: Tony Harvey, 0488073116, wide.bay.stingless.bees@hotmail.com

Deputy Chairperson: Adam Kent, 0488268245, akent@y7mail.com

Secretary: Stephan Curran, curran86@bigpond.net.au

Treasurer: Brendan Macpherson, 0404122243, brendan@brendio.com

Events/ social media: Sharon Davies (acting), wide.bay.stingless.bees@hotmail.com

Representative to ANBA Management Committee: Tony Harvey, 0488073116, wide.bay.stingless.bees@hotmail.com

Sydney branch

Co-Chairs: Natalie Er natalieer@hotmail.com / Dan Smailes, dan@sydneynativebees.com

Secretary: Michelle Carrick, michelleacarrick@gmail.com, community@sydneynativebees.com

Treasurer: Ellis O'Beirne, 0401031346, Ellis@chimeprojects.com.au

Conservation Co-ordinator: Sam Higgins, sam.higgins@outlook.com.au

Communications & Promotion: Dan Smailes, dan@sydneynativebees.com

Cultural Perspective & Education Coordinator: Francisco Garcia Bulle Bueno, 0419 446 208, fgar0019@uni.sydney.edu.au

Art & Film Coordinator: Bradley Muffett, 0422150216, bmuffett8@gmail.com

Representative to ANBA Management Committee: Dan Smailes, dan@sydneynativebees.com

Mid North Coast NSW branch

Meet on the first Thursday of each month at 7pm. Laurieton United Services Club.

Chairperson: Diane Norris, diane.beewild@gmail.com, 0422 639 336, 02 6559 4298

Secretary: David Crofts, dicrofts@gmail.com, 0407 355 750

Treasurer: Elizabeth Crowley, elizacrowley@yahoo.com.au

Communication Officer: Derek Ayriss, derekayriss@hotmail.com

Representative to ANBA Management Committee: Diane Norris, diane.beewild@gmail.com