



**Amateur
Beekeepers
Association**
NSW PARRAMATTA

August 2020

Newsletter of the Parramatta Amateur Beekeepers Inc

For information on the ABA including joining (re-joining) go to:

www.beekeepers.asn.au

To go to the Parramatta Branch Page, click on <https://goo.gl/i4q87x>

Join us on Facebook



<https://www.facebook.com/groups/parramattabeekeepers/>

Welcome to the 223 new and renewing members!

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**Honeybees communicate with one
another by dancing!**



President:	Robyn Alderton	e: parramatta.president@beekeepers.asn.au
Secretary:	Dave Wilson	e: parramatta.secretary@beekeepers.asn.au
Treasurer:	Andrew Bardsley	e: parramatta.treasurer@beekeepers.asn.au

Newsletter deadline to submit material – 20th of each month

August Presentation – The hard life of the honeybee forager

By Prof Andrew B Barron, Department of Biological Sciences, Macquarie University

We are pleased to welcome back Andrew who will be our August on-line Presenter.

Andrew will be covering how all of a beehive's productivity depends on the efforts of its forager bees. Foraging for pollen and nectar has always been an energetically demanding and cognitively challenging task, but human induced changes to the environment are making this job even more difficult for forager bees. This lecture uses data gathered with state-of-the-art microsensors that track the activity of forager bees to describe just how hard forager bees work. New experiments analyse how pesticide residues in the environment affect foraging efficiency, and the consequences of compromised foraging efficiency for colony productivity.

Note: All members have received an email invite to the August meeting. Follow the directions and you are on your way to being present for Andrew's Presentation.

President's Report

By Robyn Alderton, President

Thank you to all members who dialled in to Google Meets for our first on-line meeting held on Wednesday 15 July 2020.

If you would like to dial in, in the future, however, are unsure, please contact one of your friendly Executive for assistance (prior to the next scheduled online meeting).

If you would like to view the July Presentation, presented by Peter Clarke, click on the following link.

https://drive.google.com/file/d/1fknPhSM1C3jlCptXHIjvVjMQW_At86Xk/view

The link for the August Online Club Event is as follows:

<https://calendar.google.com/calendar/r/month/2020/8/1?tab=mc>

Please join us for this virtual meeting, I look forward to seeing you.

Kind regards Robyn Alderton on behalf of your Executive"

Your Executive continues to be hard at work. Please refer to the Executive Report for a summary.

Reminder: With the intent of maintaining the club relationship with our members, we are running a (free) raffle.

Our Club Raffle is a means of maintaining relationship with our members during the Covid restrictions. Please note that tickets for this raffle cannot be purchased and members must either nominate themselves or be nominated by another member, but only once (a member cannot be nominated by two people for the same act of kindness). To be eligible to be in the draw, members can -

1. purchase goods through the club shop, earning one raffle ticket for each \$10 spent (or part thereof - \$7.50 being the rounding figure), eg, a purchase of \$18 will earn two tickets.
2. conduct a random act of beekeeping related kindness, either for the benefit of another member or the club itself, earning one raffle ticket for each occasion/nomination.

All appropriate nominations received by the President will have tickets allocated and the raffle will be drawn at the first club event to be held after the lifting of restrictions.

See below for inspiration – the list is growing!

Nominee	Reason	Nominator
Veronica Roelink	Not for the mumma joke however for her story on 'Managing a Warre Hive'.	Robyn Alderton
<i>Guy Challis</i>	<i>For supplying his Beehive Store photo</i>	<i>Robyn Alderton</i>
<i>Jamie Thomson</i>	<i>For providing a Newsletter article</i>	<i>Robyn Alderton</i>
<i>Jamie Thomson</i>	<i>For providing a Q&A for the Newsletter</i>	<i>Robyn Alderton</i>
<i>Margaret McGregor</i>	<i>For submitting another photo for the 2021 calendar</i>	<i>Robyn Alderton</i>
<i>Guy Challis</i>	<i>For forwarding the details of a BBC article "A Bee C: Scientists translate honeybee queen duets"</i>	<i>Robyn Alderton</i>
<i>George Gourlay</i>	<i>For submitting a Newsletter article</i>	<i>Robyn Alderton</i>
<i>Jamie Thomson</i>	<i>For providing the correct reason how a 'super' got its name</i>	<i>Robyn Alderton</i>
<i>Margaret McGregor</i>	<i>For providing the correct reason how a 'super' got its name</i>	<i>Robyn Alderton</i>
<i>Timothy Kotlar</i>	<i>For providing the correct reason how a 'super' got its name</i>	<i>Robyn Alderton</i>
<i>Norm Webb</i>	<i>For submitting a Newsletter article warning members about 'brood theft'</i>	<i>Robyn Alderton</i>
<i>Arthur Garske</i>	<i>For providing the correct reason how a 'super' got its name</i>	<i>Robyn Alderton</i>
<i>Marina Tuskan</i>	<i>For providing the correct reason how a 'super' got its name</i>	<i>Robyn Alderton</i>
<i>Marina Peterson</i>	<i>For providing the correct reason how a 'super' got its name</i>	<i>Robyn Alderton</i>
<i>Guy Challis</i>	<i>Raised an important issue about a new kind of comb that is not really comb.</i>	<i>Dave Wilson</i>
<i>Timothy Kotlar</i>	<i>For submitting another photo for the 2021 calendar.</i>	<i>Robyn Alderton</i>
<i>Guy Challis</i>	<i>In celebration of World Bee Day - for advising the Executive of the availability of a documentary about bees (supported by the Wheen Bee Foundation). The ABA were contacted and requested to communicate this information to all ABA members.</i>	<i>Robyn Alderton</i>
<i>Dave Wilson</i>	<i>For the development of online Beginning in Bees Training material.</i>	<i>Robyn Alderton</i>
<i>Margaret McGregor</i>	<i>For developing a Frame Making video to be used for online training.</i>	<i>Robyn Alderton</i>
<i>Malcolm McGregor</i>	<i>For developing a Frame Making video to be used for online training.</i>	<i>Robyn Alderton</i>
<i>Bill Dick</i>	<i>June Newsletter contributor</i>	<i>Robyn Alderton</i>
<i>Arthur Garske</i>	<i>June Newsletter contributor</i>	<i>Robyn Alderton</i>

Nominee	Reason	Nominator
<i>Steve Alderton</i>	<i>June Newsletter contributor</i>	<i>Robyn Alderton</i>
<i>Marina Tuskan</i>	<i>Completed the Find-a-Word puzzle</i>	<i>Robyn Alderton</i>
<i>Marina Tuskan</i>	<i>Pointed out the errors in the Find-a-Word puzzle</i>	<i>Robyn Alderton</i>
<i>Arthur Garske</i>	<i>Completed the Find-a-Word puzzle</i>	<i>Robyn Alderton</i>
<i>Arthur Garske</i>	<i>Tenacity in an attempt to find the word 'blue' in the Find-a-Word puzzle</i>	<i>Robyn Alderton</i>
<i>Timothy Kotlar</i>	<i>Completed the Find-a-Word puzzle</i>	<i>Robyn Alderton</i>
<i>Timothy Kotlar</i>	<i>Pointed out the errors in the Find-a-Word puzzle</i>	<i>Robyn Alderton</i>
<i>Gary Christoffel</i>	<i>Act of kindness - provided beekeeping advice to new members</i>	<i>Marina Tuskan</i>
<i>Marina Tuskan</i>	<i>Act of kindness - volunteered to review PAB materials</i>	<i>Robyn Alderton</i>
<i>Robbie Ashhurst</i>	<i>Random act of kindness - tidied the apiary</i>	<i>Robyn Alderton</i>
<i>Peter Clarke</i>	<i>Col Pulling quiz participant</i>	<i>Robyn Alderton</i>
<i>Steve Alderton</i>	<i>Col Pulling quiz participant</i>	<i>Robyn Alderton</i>
<i>Andrew Bardsley</i>	<i>Col Pulling quiz participant</i>	<i>Robyn Alderton</i>
<i>Sheryl McIntosh</i>	<i>Col Pulling quiz participant</i>	<i>Robyn Alderton</i>
<i>Guy Challis</i>	<i>Col Pulling quiz participant</i>	<i>Robyn Alderton</i>
<i>Norm Webb</i>	<i>Col Pulling honey entries</i>	<i>Robyn Alderton</i>
<i>Dave Wilson</i>	<i>Act of kindness - worked in the apiary</i>	<i>Robyn Alderton</i>
<i>Arthur Garske</i>	<i>Act of kindness - worked in the apiary</i>	<i>Robyn Alderton</i>
<i>Guy Challis</i>	<i>Act of kindness - worked in the apiary</i>	<i>Robyn Alderton</i>
<i>Timothy Kotlar</i>	<i>For submitting a photo for the 2021 calendar</i>	<i>Robyn Alderton</i>
<i>Bill Dick</i>	<i>Newsletter contributor</i>	<i>Robyn Alderton</i>
<i>Arthur Garske</i>	<i>Newsletter contributor</i>	<i>Robyn Alderton</i>
<i>Guy Challis</i>	<i>For submitting photos for the 2021 calendar</i>	<i>Robyn Alderton</i>
<i>Bill Dick</i>	<i>For submitting a swarm/nest photo for the Newsletter</i>	<i>Robyn Alderton</i>

Note: Details in 'blue italics' above were published in the May and June Newsletters
New nominees are shown in Black type.

Prizes on offer are:

<i>Decapping pinwheel</i>	<i>Vented escape board</i>	<i>A bucket strainer</i>
		

All nominations to be sent to the President. The raffle will be drawn at the first club event where we can meet at the school. No tickets can be purchased for this raffle.

Stay safe and stay connected and I look forward to catching up with you on-line!

Executive Report – July 2020

By Dave Wilson, Secretary

Secretaries report PAB Exec Meeting held 22 July 2020.

This meeting was a virtual meeting due to the current COVID-19 situation. Apologies were received from Arthur Garske, Peter Clarke and Bill Dick. Present were: Robyn Alderton, Steve Alderton, Andrew Bardsley, Sandy Harrison, Margaret McGregor, Malcolm McGregor, Lod Porretta and Dave Wilson.

The treasurers report from Andrew Bardsley indicates an opening balance in June of \$5,923.03 with a closing Balance of \$8,169.43. The income came from stores and honey sales over the month.

The executive is still considering the difficulties involved in transporting honey frames from the apiary to the extracting shed. Usually this is done with a member's car and trailer but with tight gates and laneways car damage is always a possibility. If the club were to purchase some form of vehicle to do this work what would be the status of the insurance? This matter has been passed to the ABA insurer for consideration. Dave Wilson and Steve Alderton have responsibility for this matter.

With COVID-19 there has been no beekeeping training courses operating. The club has developed a blended learning course where the theory work is done by the student at home with a self-marking assessment system and the practical apiary training to be done when the social distancing situation is resolved. This new training method will be trialled soon.

The club was successful with the recent Col Pulling interclub competition being joint winners with the Hunter Valley club. The shield will remain on display at the Illawarra club as neither the Hunter Valley nor Parramatta clubs have suitable display and storage facilities.

The executive is considering the merits of having Nuplas hive components available through the shop. The price difference between the traditional wooden boxes and the Nuplas plastic boxes is not great. A final decision will be made when the current stock of boxes is depleted.

A large amount of club honey in 1 kg tubs has been sold but how much should be donated to the school? This raised the issue of the best ways the club can support the school. A discussion with the school will occur soon. Robyn Alderton is responsible for this item.

Sandy Harrison and Peter Clarke are developing a set of guidelines to make sure the club swarm collection for new members, who have completed their training, will run well in the coming spring.

The school has contacted the club and advised that the club could return to physical meetings at the school. After a detailed report by Sandy Harrison on the current COVID-19 situation it was decided that club meetings would remain virtual until this issue is far less serious.

There was general agreement that the last club event, the July virtual meeting organised by Robyn Alderton with Peter Clarke as guest presenter, was highly successful. Robyn indicated that she had a range of guest speakers organised for coming meetings.

The local Lions club have asked can they sell club honey. Lod Porretta and Robyn Alderton are dealing with this matter.

A stainless-steel table to make honey bottling more hygienic has been purchased by Peter Clarke.

The matter of the club calendar for 2021 was considered. With no physical meetings and public events, where the calendar could be sold in the foreseeable future, it was decided not to proceed with this project for now.

The meeting closed at 9.10 pm. This summary of the meeting prepared by Dave Wilson.

Club meeting records are maintained by Dave Wilson. Should you require further information, please contact Dave on parramatta.secretary@beekeepers.asn.au

Beginning in Bees Training is coming!

Your Executive (in particular Dave Wilson) has been hard at work in developing on-line knowledge training for new beekeepers.

We are close to piloting the program. Look out for the Eventbrite invite coming soon.

Beginning in Bees Training will be at a cost of \$100 per member and will include the DPI handbook: Bee AgSkills and an apiary training field day. In saying that apiary (hands on) training will not take place for a while as the school has implemented Covid-19 strict rules that we must abide by and currently includes a restriction of 2-3 members on site at a time.

Now is the perfect time to complete your intensive on-line training in the comfort of your own home so that you are apiary ready as soon as field training can safely begin.

PAB 2021 Calendar – CANCELLED for 2021

By Robyn Alderton

It is with regret that we have cancelled the 2021 PAB Calendar. Your Executive thought long and hard before making this decision. However, with Covid-19 and no face to face meetings and public events where we can sell the Calendar, it was decided that the best decision was to cancel for 2021. All photographs received as entries will be held (hopefully) for a 2022 calendar.

Apologies for any inconvenience.

Attention to all those selling their honey

For those of you who are lucky enough to have available honey and/or honey products for sale, please ensure you follow good Covid protection practices, eg:

- request that money be deposited directly into your nominated account or to be left in a zip lock envelope at a nominated location.
- organise a safe place to enable the product(s) to be picked up with contactless pick up.

Look after your health and be vigilant!

About nectar and honey

By Arthur Garske

Arthur shares his nectar and honey knowledge and expertise

Nectar is a super saturated sugar solution containing a negligible percentage of salts, vitamins, ferments and a mix of pollen.

Honey contains protein, traces of several different acids and minute indefinable substances which influence colour, aroma and flavour. The sugar solution is mainly fructose and dextrose, with a water content between 40-80%. The bees evaporate 1/2-3/4 of what they bring back to the hive.

The process of converting nectar into honey commences with the addition of enzymes from the bee collecting the nectar and this starts the conversion of the sugars.

An average hive consumes 90kg per year in the production of honey. 400kg of nectar converts to 90kg of honey. Bees need to consume 2kg of honey to produce 10kg of honey from the nectar gathered and the energy required to convert 1gm of water into vapour is 2.2 kilojoules.

There is a correlation between the amount of protein in the honey which bees consume and the intensity and amount of their venom. It has been established that some components of bee venom are similar to that of the adder and cobra. Interestingly bee venom is both acidic and alkaline. Different honey flows influence the toxicity of the venom.

The toxicity of stings increases 10-fold when bees have been confined to the hive for longer periods. It can be helpful therefore to allow them to fly for a day at least before working them.

*Reference: Bees I. Khalifman
(Won the Stalin Prize for Bee Research, 1951)*

Covid-19 update

By: Sandy Harrison

In these uncertain times we need to embrace the new normal.

The second wave of Covid-19 in Victoria and NSW will reinforce the need for the following both in your community and our beekeeping lives:

- Stay home unless necessary.
- Meet only in small known groups.

Hand wash or use sanitiser regularly

- Keep the 1.5 metres social distancing. This is particularly important for our at risk'' members who have known medical conditions and/or are over 70 years of age.

With the current climate it is impossible and unsafe to meet either as an executive or a club.

As a responsible beekeeper we still need to tend our hives, and this can be undertaken safely using social distancing.

Let us know if any members may need help at this time. Thank you to those who are already helping.

Keep informed on this pandemic and we will reach the other side together stronger as a community.

Be safe and good beekeeping.

Managing a Warre Hive

By: Veronica Roelink

There are a few people in the club who have shown interest in the Warre Hive. Once again, I have had a gentle shove from Bill Dick to get a bit more info out there. July 2018 was the last article I wrote so it has been 2 years! I love chatting to all the different beekeepers in our club, I love using a Warre but there is no hive pushing from me, so here goes, take what interests you and leave the rest!

Principles of the Warre Hive:

Firstly, we let the bees naturally make their own **Natural Wax Comb**. Each new frame we put into the hive will have a 15mm starter strip to get the colony started. This way as the colony builds, they can determine the size of cells which results in whether the queen lays a drone or worker bee egg. This means we don't use or have to store 'stickies'.

We enjoy our honey harvests, but natural beekeeping principles say never take too much honey because the bees are making this super food for themselves. Turning pollen and nectar into the perfect all-nutrient all-enriched **Natural Food** gives the best long-term bee health. Supplementary feeding a processed white sugar cannot achieve this.

We **do not use chemicals** in the Hive (which is always constructed from timber).

Swarming is not regarded as a bad thing because it is the natural way for a healthy colony to reproduce and a great way to start a new hive. If needed, it is possible to split a hive to avoid a swarm. Generally, **natural reproduction** lets the colony sort themselves out and they will replace the queen if she is not performing well. The new queen will mate with local drones improving genetic diversity and making locally conditioned and stronger bees. No queen excluder is used in the hive which means the queen can lay wherever she likes, though it is in a predictable pattern.



Natural Beekeeping is a bee-centric approach to Beekeeping where the amazing superorganism of bees is prioritised above a large honey harvest. Although inspections and harvests are carried out, **minimal intervention** is another principle because a great deal can be learned from observations outside the hive.

Bees in Nature nest in places like tree hollows and naturally build the honeycomb down. The Warre Hive is tall and narrow representing a tree trunk. As the colony grows, boxes are added to the base of the hive so the comb can continue to be built downwards. The queen prefers to lay on the fresh new comb so as the hive grows downwards, so does the brood area which results in the top box eventually being fully capped honeycomb ready to harvest.

Managing a Warre Hive:

A Warre Hive does differ in looks and management to a Langstroth Hive although a Langstroth Hive can be modified for Natural Beekeeping if required.

A swarm can be captured directly into two Warre Hive boxes (or one if small) sitting on a Warre base with a lid. This combination can be strapped up and the entrance closed for transporting later in the evening once they've 'gone to bed'.

When the bee colony needs more space in the hive, we add new boxes to the base of the hive - called Nadiring. Because we do not use a Queen excluder the queen can naturally move down to lay lower in the hive when needed.

The Warre Hive boxes are square and have 8 frames, each with a top bar and sides. The frames do not have a base bar which provides the beekeeper with another point of inspection from under the box. This also reduces the distances between the combs so the colony can stay as a whole unit as the hive grows downwards into the lower boxes. The queen can lay over multiple boxes and the temperature is more easily controlled by the colony. The number of boxes used depends on the size of the colony. It is good to have 6 boxes per hive. The highest I have gone to is 5 but having 6 boxes means you can have a box prepared to Nadir at the same time as harvesting the top box. Because the bees make their own wax for the comb, we just provide a wax starter strip to guide them in the right direction. 1 sheet of wax is enough to provide starter strips for 2 Warre hive boxes.

Steps at Inspection time:

- The Warre hives sit on Besser blocks secured with an Emlock strap.
- To start, remove the roof (which protects the quilt box). Then remove the square board which sits on top of the quilt box. Take out the quilt insulation layer (which is wood shavings inside calico sack or pillowcase). Remove the quilt box and place all these to the side.
- Resting on the topmost box is a layer of flyscreen which keeps the bees below this point.
- I have a second base board which I use for inspections. Firstly, I remove the top box and place it on the spare second base. Then I stack up the boxes on top as I remove each layer and when I get to the bottom of the Warre hive I can assess whether or not I need to nadir a new box for extra space. If needed, an empty box is placed on the original base board. I have a 'Beetletra trap' in the hive's baseboard.

Then the hive is reassembled by stacking the boxes, one on top of the other, back into their original order on top of the new box which is now sitting on the base board.

- Like a Langstroth Hive, each box is inspected for pests and disease.
- If the top box is full of capped honey, I will remove it to harvest so long as there is plenty of honey stores left in the hive for the bees.
- After the boxes are back in place, reposition the flyscreen layer and then the quilt box, quilt, quilt box lid and Hive Roof. Then I finish up by securing the Hive back together with the Emlock strap.



Let me finish off with a joke I heard.

*Q: How can you tell a Warre
beekeeper?*

*A: Don't worry they'll tell you!
Hahaha!*

Congratulations – Timothy Kotlar

If you want to know why we are congratulating Timothy, refer to Page 3 of your ABA Newsletter.

We'll give you a hint 'Biosecurity Code of Practice.

In the media

Submitted by Veronica Roelink

Purple Protection: Frontline defence against varroa mite

A team which has worked on the Mars Rover project have designed a beehive using tiny cameras and artificial intelligence to detect and prevent hitch-hiking varroa mites from entering our ports.

Source: Landline <https://www.abc.net.au/landline/purple-protection:-frontline-defence-against/12492722>, accessed 2 August 2020

Club shop

By Lod Porretta, Stores Officer

Due to Covid-19, the club shop is closed however you can email your order to the Stores Officer.

Submit your order by Monday. The Stores Officer will advise the cost. Payment to be submitted electronically. After clearance of funds in the club account, an advice will be sent and goods can be collected the following Wednesday from Castle Hill (pm).

Members are encouraged to support PAB by purchasing their beekeeping goods from the club shop whenever possible.

Special!

The store has a couple of treated, assembled and painted boxes for sale in the shop available for the low price of \$45 each. These boxes are of superior quality, they are:

- Shaped with rounded corners
- Nailed in all dove tails
- Dipped in copper naphthanate to prevent rot
- Primed with oil based anti bleed primer paint
- Box faces painted with two coats of full gloss acrylic paint
- Box edges painted with two coats of full gloss oil-based paint

This product is produced in Australia and made from A-Grade timber.

A quality product made by beekeepers for beekeepers.

Members are encouraged to support their club shop and purchase their beekeeping goods from the club shop whenever possible.



Reminder: the store also stocks assembled screened stainless-steel mesh bottom boards.

These bottom boards are made to fit 8 frame boxes and come unpainted.

They include removable slide out tray for lime etc. These screen bottom boards are available for the bargain price of \$41.50.



Shop email: Lod Porretta [**parramatta.stores@beekeepers.asn.au**](mailto:parramatta.stores@beekeepers.asn.au)

The following items are available to purchase in the Club Shop:

- Beetle Traps
- Cleats
- Foundation
- Gloves
- Honey Gate
- Risers
- Uncapping Boxes
- Bottom Boards
- Chemicals
- Frames
- Hive Closers
- Jackets/Suits
- Smokers
- Boxes
- Eyelets
- Frame Wire
- Hive Locks
- Lids
- Spur Wheels
- Bee Brush
- Electric Embedder
- Glass Jars
- Hive Tools - J
- Plastic Buckets
- Strainers & Cloths

If the item(s) you seek are not listed above, just email your friendly Stores Officer to see if, in fact, the item is in stock.

Handy contact details

Position	Position Holder	Contact Details
President	Robyn Alderton	parramatta.president@beekeepers.asn.au
Vice President and Bio Security Officer	Dave Wilson	parramatta.vp@beekeepers.asn.au
Secretary	Dave Wilson	parramatta.secretary@beekeepers.asn.au
Treasurer	Andrew Bardsley	parramatta.treasurer@beekeepers.asn.au
Stores Officer	Lod Porretta	parramatta.stores@beekeepers.asn.au
Apiary Officers	Dave Wilson and Arthur Garske	parramatta.secretary@beekeepers.asn.au awgarske@gmail.com
Events Coordinator	Sandy Harrison	parramatta.events@beekeepers.asn.au
Member Officer	Steve Alderton	parramatta.membership@beekeepers.asn.au
Colony Distribution Officer	Bill Dick	parramatta.swarms@beekeepers.asn.au
Education Officer	Arthur Garske	awgarske@gmail.com
Extractor Custodian Officer - east	Sandy Harrison	parramatta.events@beekeepers.asn.au
Extractor Custodian Officer- west	Andrew Bardsley	parramatta.treasurer@beekeepers.asn.au

What's on in 2020

Date	Time/Event	Feature/Comment
12 August	On-line 7.30 pm Parramatta Club Event	August Club Event Presenter: Professor Andrew Barron Topic: The hard life of the honeybee forager <i>Refer to your calendar invite (email sent on or after 17 July (new members are added as and when they join) to your PAB registered email address) for dial in details or click on the following link to take you to the Google Calendar page.</i> https://calendar.google.com/calendar/r/month/2020/8/1?tab=mc
19 August	6.30 pm Executive Meeting	On-line
9 September	On-line 7.30 pm Parramatta Club Event	September Club Event Presenter: Peter Clarke Topic: All you need to know about swarms and being swarm ready
16 September	6.30 pm Executive Meeting	On-line
14 October	On-line 7.30 pm Parramatta Club Event	October Club Event Presenter: TBC Topic: Mead Making - TBC
21 October	6.30 pm Executive Meeting	On-line
11 November	On-line 7.30 pm Parramatta Club Event	November Club Event Presenter: TBC Topic: Apiary management over the heat of summer - TBC
18 November	6.30 pm Executive Meeting	On-line
9 December	6.00 pm Parramatta Club Event	December Club Event - TBA
16 December	6.30 pm Executive Meeting	On-line

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