

Victorian Entomologist



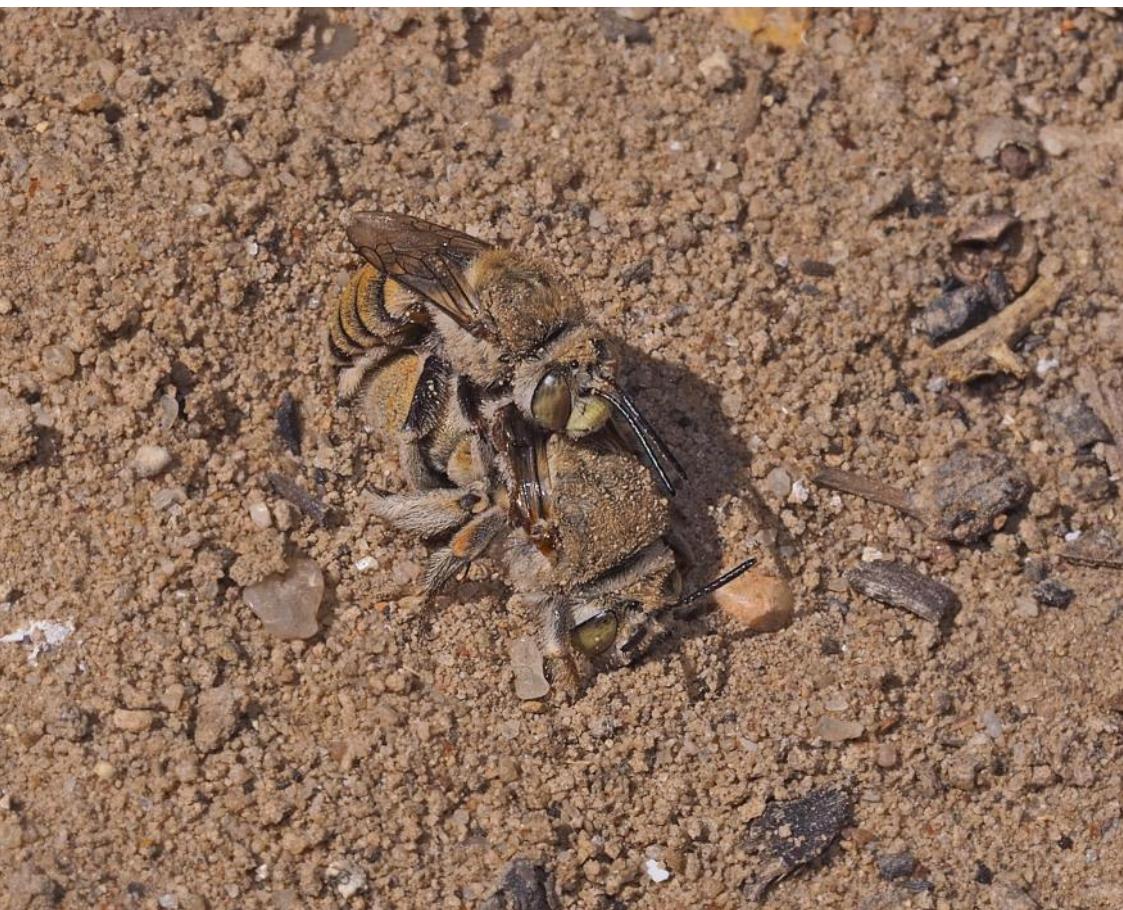
Entomological Society
of Victoria

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News Bulletin of The Entomological Society of Victoria Inc.

THE ENTOMOLOGICAL SOCIETY OF VICTORIA (Inc)

MEMBERSHIP

Any person with an interest in entomology shall be eligible for Ordinary membership. Members of the Society include professional, amateur and student entomologists, all of whom receive the Society's News Bulletin, the Victorian Entomologist.

OBJECTIVES

The aims of the Society are:

- (a) to stimulate the scientific study and discussion of all aspects of entomology,
- (b) to gather, disseminate and record knowledge of all identifiable Australian insect species,
- (c) to compile a comprehensive list of all Victorian insect species,
- (d) to bring together in a congenial but scientific atmosphere all persons interested in entomology.

MEETINGS

The Society's meetings are held at the Activity Room Ground Floor, Museum Victoria, Carlton Gardens, Melway reference Map 43 K5 at 7:45 p.m. on the third Tuesday of even months, with the exception of the December meeting which is held earlier in the month. Lectures by guest speakers or members are a feature of many meetings at which there is ample opportunity for informal discussion between members with similar interests. Forums are also conducted by members on their own particular interest so that others may participate in discussions.

SUBSCRIPTIONS

Ordinary Member	\$35
Overseas Member with printed bulletin	\$65
Country Member	\$31 (Over 100 km from GPO Melbourne)
Student Member	\$23
Electronic (only)	\$20
Associate Member	\$ 7 (No News Bulletin)
Institution	\$40(overseas Institutions \$80)

Associate Members, resident at the same address as, and being immediate relatives of an ordinary Member, do not automatically receive the Society's publications but in all other respects rank as ordinary Members.

LIFE MEMBERS: P. Carwardine, D. Dobrosak, I. Endersby, R. Field, P. Marriott, T. New, K. Walker.

Cover and logo design by Ray Besserdin 2017

Cover photo: *Amegilla (Asaropoda) calva* mating in nesting colony at Noccundra Queensland 30 September 2019. Photo Linda Rogan See p. 120.

Minutes of the Entomological Society of Victoria general meeting
Tuesday 15 October 19:45
Melbourne Museum

Attendance: Julia McCoey , Martin Lagerwey, Lyn Meredith, Linda Rogan, Peter Carwardine, Maik Fiedel, Sharon Mason, Ray Besserdin, Ken Harris, Ian Endersby, Reiner Richter, Peter Lilywhite, Stuart Lay, Carol Page, Joseph Schubert, Joshua Grubb, Jason Cochrane, Gordon Ley, Roch Desmier de Chenon, Nik Willmot, Cait Selleck, Ian Smith, Trevor Kennedy, Alison Fiske, John Fiske, Ken Gosbell, Frank Pierce, Denise Deerson, Ben Kurek, Anthony Kurek.
Visitor: Wendy Clarke.

Apologies: Sue Bendel, Robin and Gordon Sharp, Geoff Hogg, Elly Millier, Peter Marriott

Previous minutes:

Minutes of the EntSocVic General Meeting Tuesday 20 August 2019 as printed in VE Vol. 49 no. 5 p. 93. M: Ian E S: Martin L

President's report:

Discussed the desirability and recommended that Peter Marriott be made Life Member of Victorian Entomological Society. The constitution states: Honorary Life Members shall be approved by the Council and elected by a two-thirds majority at an Annual or Ordinary meeting.

Motion: Peter Marriott be made an honorary life member of Victorian Entomological Society.

M: Julia M /S: Linda R

It was passed by a unanimous vote..

Julia called for volunteers to support a stall at the Botanica Festival - Sunday 20 October

Treasurer's report:

The treasurer's report for March - August 2019 is below.

March General: \$4391 Le Souëf: \$8086 Publishing: \$22489	April General: \$3855 Le Souëf: \$7986 Publishing: \$19274	May General: \$3756 Le Souëf: \$8140 Publishing: \$19807
June General: \$3573 Le Souëf: \$8140 Publishing: \$20327	July General: \$3111 Le Souëf: \$8140 Publishing: \$20576	August General: \$2968 Le Souëf: \$8140 Publishing: \$20969
Membership: Total non-institutional: 123 Un-financial ordinary members: 2 Institutions: 11 Un-financial Institutions: 0		

Account Balances:

Moved that the financial report be accepted.

M: Josh G S: Julia M

The treasurer recommended the following which Council has accepted:

To change the Turkish Journal to an electronic exchange, which will cost us nothing, provided they agree with this decision. The Turkish Journal copy should be forwarded to the secretary's email address to prevent it being lost with changes in council membership.

It was proposed we continue the exchange of bulletins between the Society for Insect Societies, given that they are quite relevant to our society. These are to be sent to the secretary also.

The treasurer has noted these arrangements for these memberships in the master file to help

prevent this loss of corporate memory in future.

ESV is running at slight loss approx. \$35 per annum with three international institutional subscriptions. It costs ~\$80 to send out the bulletin to each, but we only receive \$68, because all the international subscriptions are through agencies who receive a 20% discount. Local Members are covering this discrepancy.

This can be rectified by:

Subscriptions for overseas institutions being raised to \$95 for the calendar year 2020, and the discount be dropped to 15%, giving a final agency discounted price of \$80.75. This will ensure that local members don't pay for overseas institutions.

There are no overseas institutional subscribers who do not use an agency, so no other subscriptions will be affected by this decision.

M: Josh Grubb /S: Peter Marriott (by email prior to meeting)

Upcoming meetings: REMINDER

November Sat 30th end of year excursion at Yarran Dheran nature reserve.

Presentation: Peacock Spider by Joseph Schubert:

Peacock spiders and their relatives

By Joseph Schubert



Joseph is employed at the Melbourne Museum as a Legacy Registration Officer Entomology/Arachnology and does taxonomy in his spare time. In fact he has been scared of spiders throughout his early life but now he keeps some as pets.

He says that the *Maratus* species and other Salticidae have helped him transform his fear into appreciation. He mentioned that some consider the *Maratus* to be like eight-legged kittens.

The first slide showed the parts of a spider (Figure 1). A most important characteristic of a spider is the ability to make silk. The silk may be used for web making or other purposes such as lining a burrow or creating a shelter.

The Salticidae are a large group of small spiders often called jumping spiders. They have characteristically large front eyes and excellent eyesight which helps them with hunting.

One particularly interesting Salticid is *Portia*. This genus is reputed to be the smartest spider in the world due to its ability to solve problems. This was clearly explained by David Attenborough in the following BBC video, *Portia* three superpowers:

<https://www.youtube.com/watch?v=UDtlvZGmHYk>

- The head and thorax are fused to form the cephalothorax
- Abdomen
- 4 pairs of walking legs
- Abdomen (opisthosoma)
- 6 to 8 eyes
- No antennae
- SILK!

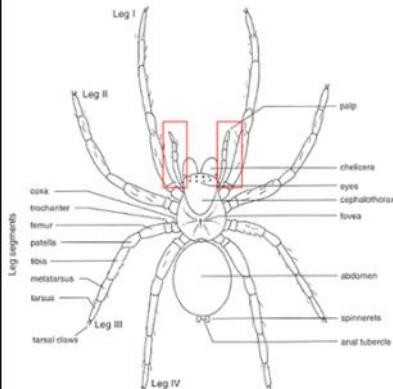


Figure 1 Spider body parts and characteristics.

A part of the fascination with salticids is that there are so many species and many have not yet been described. So far about 6000 are known and it is still possible to find a new one in your backyard. For Australian spiders in general it is estimated that only about 1/3 of those existing have been described.

Jumping spiders come in a wide range of body shapes. A particularly interesting genus *Ligonipes*, imitate ants, as well as many other genera (Figure 2).



Figure 2 *Ligonipes* species Photo: Nick Volpe

Joseph also showed us a two minute video demonstrating how some of these spiders actually move in an ant-like manner.

The real show-offs of the Salticid world are the *Maratus* species. This only applies to the males as the females are rather drab but a bit larger (Figure 3). The males' unique abdominal patterns appear to be useful mainly for courtship. While these spiders are venomous this is only effective on very small prey. The males only develop their bright colours with their final moult which tends to be in the spring.



Figure 3 *Maratus aquilus*
Male (left) female (right)

Their flamboyance was clearly shown in Jurgen Otto's video Peacock spider: "Staying Alive": https://www.youtube.com/watch?v=HPh_Gi7PCqs

Although *Maratus* species tend to be found in dry woodlands, they are actually quite widely distributed. A new species has been found that occurs only on outback salt-flats.

In 2019 Joseph published an article that describes three new species from south west Western Australia. He finds taxonomy can be a lot of fun as one has the opportunity to choose a name for the new species. An example is the species *Maratus felinus* which he finds resembles a bobcat (Figure 4).

Although taxonomy can be rather competitive, Joseph has found it is best to work collaboratively.

His recent trip to WA (Figure 6) included several days spent searching for a particular spider near Kalbarri. Despite his best efforts he was unsuccessful. However, he was contacted by a colleague from the Australian Museum who coincidentally had specimens collected roughly 18 years earlier from the same region, showing the value in natural history collections.

Joseph had just returned from his driving trip to WA and was pleased to report he had found three more undescribed species.

Maratus felinus: The cat-like peacock spider



Figure 4 Abdomen is reminiscent of a cat, the lynx.



Figure 5 Males of three undescribed *Maratus* species.

Further study is being carried out by researchers from the University of Hamburg to investigate the eyesight of peacock spiders. Joseph spent three weeks in Western Australia assisting with their experimental work and collecting and identifying peacock spiders.

Joseph concluded his informative presentation by urging members to consider studying spiders and perhaps becoming involved in taxonomy.



Figure 6 Joseph at iconic feature of Kalbarri National Park.

Many thanks to Joseph for fitting this entertaining presentation in so soon after returning from a potentially exhausting sojourn to WA.

Other business:

Presentation by Reiner to launch the book
Reiner Richter / Ian Endersby – Dragonflies and Damselflies of Victoria and Tasmania.

Books for sale \$25 members \$30 non members – many books were purchased on the evening
Meeting closed: 9.15pm

EntSocVic participates in Botanica Festival - Sunday 20 October



Big thanks to Peter Carwardine and Martin Lagerwey for your invaluable contributions! We were a very busy stand on the day, drawing a lot of interest. *Julia McCoey*

Supported by The City Of Glen Eira, the Rippon Lea Estate held a garden festival entitled 'Botanica', in which the Society was invited to participate. Focused on celebrating Australia's natural wonders and sustainability, the event was a day of workshops, market stalls, curated experiences and exclusive talks throughout the heritage grounds of Rippon Lea.

The Society presented a stand displaying some of Victoria's invertebrates, and Peter Carwardine, Julia McCoey, and Martin Lagerwey spoke to the public about the feeding habits of the feather-legged assassin bug, the life cycle of praying mantises, leaf beetles, moths, and other invertebrate topics. The stand was popular, generating interest in the society and insects in general. *Julia McCoey.*



Beyond the Botanica Festival, EntSocVic councillor and artist Ray Besserdin's display of Paper Landscapes daily and is included with tour admission at Rippon Lea

<https://www.ripponleaestate.com.au/event/the-ray-besserdin-exhibition/>

See photo details of two works on p. 119.

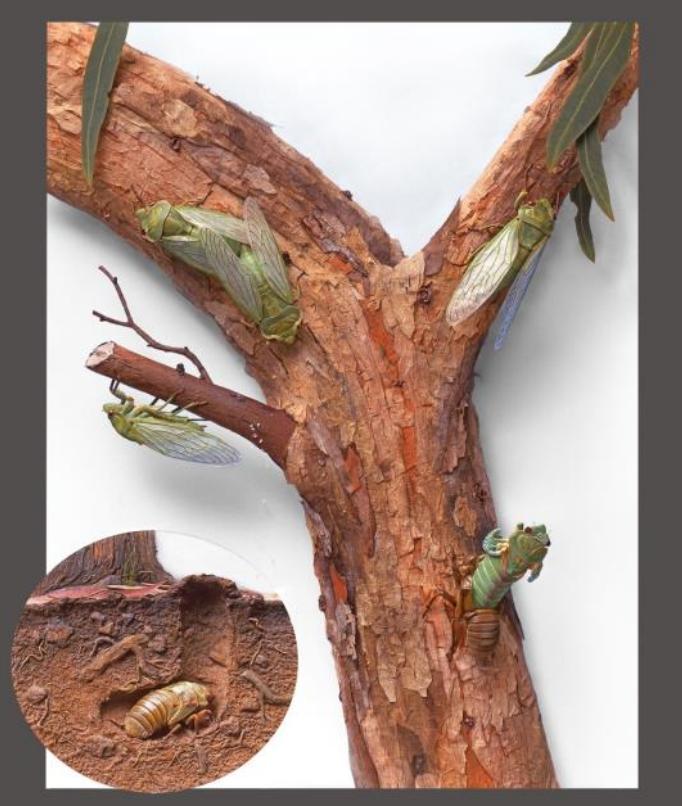


Details of Ray's artworks
on display at Rippon Lea
until 8 December 2019.

Spider Hunter
(*Chrypotocheilus* sp.) on
Eucalyptus Bark in situ at
Rippon Lea p. 118 and
details of this work above.

Right: The Life Cycle of the
Green Grocer Cicada,
(*Cyclochila australasiae*)

These three photos by Ray
Besserdin.



Moth Feeding

Paul Whitington

Following on from last month's article on Butterfly feeding by Kerri-lee Harris, these comments and photos come from Paul.

The proboscis and labial palpi are not exclusive to butterflies. These structures are shared by many of their moth cousins, although they often look rather different - as you can see in the following photos of moths from three different families: Geometridae (Figure 1); Gelechioidea (Figure 2); Plutellidae (Figure 3).



Figure 1 Geometridae



Figure 2 Gelechioidea

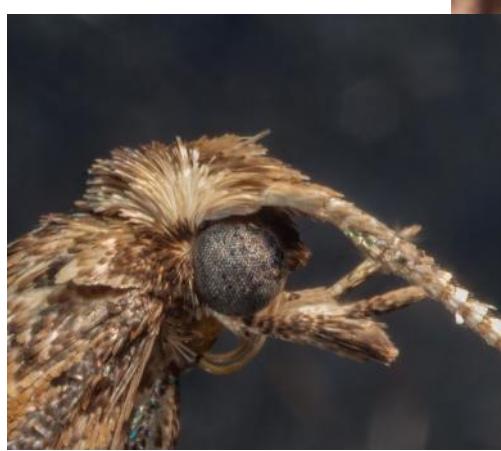


Figure 3 Plutellidae

Not all moths possess a proboscis. The proboscis is either vestigial or absent in more primitive moth families, such as the ghost moths (family Hepialidae). Adult ghost moths live for only one day and cannot feed or drink.

Adults of the most primitive moths, in the family Micropterigidae, lack a proboscis but they do possess functional mandibles - they are the only moths to do so. Northern hemisphere species feed on pollen grains. It is thought that most of the nine species of Australian micropterigid moths eat fern spores.

Reference:

Krenn, H.W. (2010) "Feeding mechanisms of adult Lepidoptera: structure, function and evolution of mouthparts." Ann. Rev. Entomol. 55: 307-327. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4040413/>

Nesting native bees in Victoria

Recently the Editor has become aware of two different native bee nesting areas near homes in Gippsland. These observations are reported here.

Suburban garden in Sale, Victoria

Ron Greer reports he has been watching the native bees nesting in his garden since 2014, about a year after moving into his suburban home. The garden is north facing and sheltered from most rain although pot plants in the area are watered (Figure 1). Bees have been appearing in the same area for at least six years and Ron thinks they are increasing in numbers over that time. Now he estimates about 15 entrances in a 6-7 metre square area and observes several bees entering each hole (Figure 2). About 40-50 bees can be seen being active at the same time on a warm day. The bees have been active on days when the weather is suitable from the end of September until late Autumn or when the cold weather sets in. These have been identified on iNaturalist as *LasioGLOSSUM (Chilalictus)* most likely *bicingulatum*.



Figure 1 Garden area where *LasioGLOSSUM* sp. have their burrows. Photo: Ron Greer

Although some of the entrances appear to have turrets (Figure 3), Ron thinks this may reflect where soil has been removed around the entrance as he hasn't observed the turrets being built.



Figure 2 *LasioGLOSSUM* sp. heavily laden with pollen
8 January 2015 Photo Ron Greer



Figure 3 Apparent turret between stones
13 Oct 2019 Photo Ron Greer

He has noticed the females, loaded with pollen, may rest on leaves in the sunshine prior to re-entering a burrow (Figure 4). At present Ron has not seen any males. Nor has he seen where females feed or collect pollen and nectar. There are eucalypts nearby.

Ron states he has also seen some *Amegilla* sp. blue banded bees nesting in his garden. He will be watching for them later in the year.



Figure 4 Laden female resting 2 Nov 2019
Photo Ron Greer

Bee Haven in Tetoora Road (which is a suburb near Warragul, Victoria)

Another Gippslander reports: 'Just near our house is an area which I have kept grass free as we cannot mow it and there are bushfire concerns (Figure 1). A few years ago I noticed some little piles of excavated dirt appearing on the first really warm day of spring. Careful observation showed these were the homes of some native bees. They flew quickly and I had trouble taking pictures. Some came back so loaded they were yellow with pollen (Figure 2). They landed and looked around a bit and then scuttled down a hole. It seemed that they knew which hole was theirs. Fast forward to this year (2019) and we now have literally hundreds of these solitary bees which are about 7 mm long and black bodied. The area taken by their nests is expanding and if you go out on a hot day you can see them flying rapidly around.'



Figure 2 *Leioproctus* sp. at burrow 2016

On the 17/11 it was reported 'very heavy rain had not finished emergence of bees. There were about ten of them out in the pm when the sun came out, and about the same each day since. They only come out if it is hot. This pm there are about 20 flying around.'

So keep a lookout around your place – who knows what you might find in a bare patch of earth.

Photos are by the Gippslander .

We hope to hear more from the Gippslander if her experiment is successful. Editor

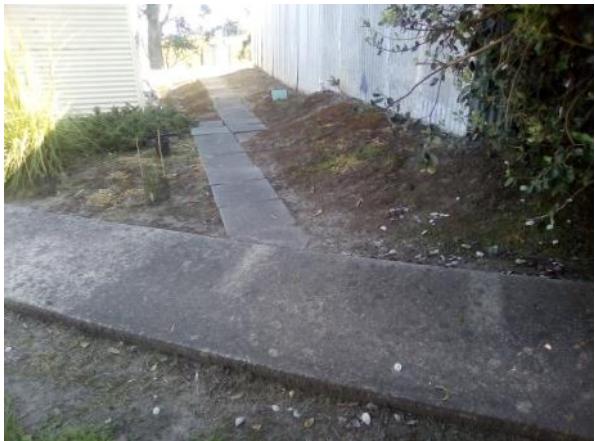


Figure 1 *Leioproctus* nesting area

The Museum of Victoria (Sam) said 'these bees appear to be a species of *Leioproctus*' (Figure 2).

'In a low key experiment I have put out a plant pot and the bees are now nesting in it. I have constructed a perspex home for them – will it be deep enough? Will they build near the edges? If they like it we may find out more about their habits'.



Figure 3 Another bee photographed nearby, possibly a male of the same species.

Observations of *Amegilla (Asaropoda) calva* nesting aggregations

at Noccundra Queensland

Linda Rogan editor@entsocvic.org.au

Perhaps not an odyssey of Homeric proportion but what started out to be a quick trip to southern Queensland turned into something a bit more. In truth the start was several years ago when I became aware of a Blog by David Nelson, with excellent photos of some *Amegilla (Asaropoda)* bees found nesting in burrows along the Bulloo River near Quilpie. At the time I contacted David who had no helpful memories beyond the fact that the bees were along the Bulloo River, walking distance from the main road and not far from Quilpie. His sighting was 31 August 2009. My husband and I frequently travel in outback Queensland in July and August so we began to keep an eye out along the Bulloo River whenever we passed this way. For several years this was to no avail.

The first breakthrough, for me, came in August 2016 when we travelled on from Thargomindah on to Quilpie via Eromanga. The more direct Thargo-Quilpie Road was closed due to flooding. On an impulse we took a side trip along a narrow bitumen strip as far as the historic Noccundra Pub near the waterhole of the same name, along the Wilson River. When Peter noticed the 'open' sign on the otherwise sleepy looking pub, he decided to take a chance for a cup of coffee (Figure 1). This is when he met publicans Sarah and Margaret. 'What brings you to Noccundra?' was their usual question. On learning we were searching for native bees, they said 'Well we have native bees that nest right here in the campground by the Wilson River.' Peter made a mental note to mention this to me as I had stayed in the car.

I later contacted Sarah and Margaret via email to ask for more information. Though they couldn't tell me much at that time, they promised to keep my details in case the bees appeared again in the future.



Figure 1 Noccundra Hotel September 2019

In late September 2016, long after we had returned to the cooler clime of Briar Hill, Victoria, an email came announcing the bees were emerging in the campground. At that time it was not possible to turn around and head back to Queensland due to other obligations. I requested all the information they could glean between busy moments with campers and customers coming up from the Warri Warri gate. They also took some photos and we were able to determine that the bees are *Asaropoda*, the same subgenus as Dawson's burrowing bees *Amegilla dawsoni* and the Asaropoda bees *Amegilla bombiformis* which some people call teddy bear bees. We couldn't verify a species but the photos looked similar to photos of bees nesting at Eurardy Reserve in WA which at that time were called *Amegilla (Asaropoda) paracalva*.

Keeping touch with my bee-minders at Noccundra I found the bees were well and truly gone on 2 December 2016 and probably well before that time. There was no re-appearance in 2017 nor 2018 nor when we visited in early September 2019. Although there had been minor flooding in the Noccundra area and major flooding in areas such as Julia Creek and into the Cooper Creek, things were very dry along the Wilson River in September with almost nothing blooming beyond the patchy but widespread *Eremophila bignoniiflora*. With the land so dry and so little in bloom we believed there was little chance of the bees emerging in 2019.

How wrong we were. On 8 September 2019 an email from Sarah said simply, 'The bees are back' (Figure 2)

Totally re-arranging our schedule and overcoming a number of obstacles, we headed north to Tiboburra and thence along the unsealed road from Tiboburra to Noccundra with confidence; the 4WD had new tyres and a heavy duty clutch installed. Had we forgotten how rough the road from Tiboburra to the Warri Warri gate had been? If so we were rudely reminded when we pulled up at the gate and discovered the tap had been knocked off the caravan's water tank and water was slowly draining away and worse, one of our new tyres was flat.



Figure 2 *A. calva* colony 16 September 2019.
Photo Sarah Turner

It was hot and it was dusty and flies were striving to get into our eyes. Peter dealt with the tyre, the jacks, the fact that the van had to be unhitched in order to reach the necessities, all of course in the heat of the day. I kept the water bottle handy. His success can be measured by the fact that we pulled in at the Noccundra Hotel (Figure 1) on Sunday 29 September before sunset and after a quick 'hello' drove the 500m down the track to where the bees emerged near an old culvert which was converted to a fireplace (Figure 7). Walking the last few metres, we were greeted with the welcome determined buzz of hundreds of *Asaropoda* bees. Never have I heard a more beautiful sound. We chose a shady camp site nearby and like the bees, settled in the cool of the evening.

Early morning a rose red sky reflected over the Wilson River (Figure 3) and I could hear the



Figure 3 Sunrise Wilson River Noccundra waterhole

bees revving inside their burrows while a few early bees (males) began to patrol the turrets and others (females) flew off somewhere to collect pollen and nectar for bee bread.

Observations:

These bees had emerged some time after our visit in mid August 2019 and prior to Sarah's notification on 16 September 2019. Her photo (Figure 2) shows the holes with small turrets that have not yet been disturbed by campers indicating they may be fresh.

Two colonies were observed. The first colony was inside the camping area and consisted of hundreds of holes, most with small turrets. (Figure 4). By the time we had arrived on 29 September 2019, car traffic and foot traffic had flattened a large proportion of the turrets at the first colony. I noticed the bees continued to utilise those disturbed holes. A second colony about 800m upstream along the river was about 20% fewer in number, on a slight incline next to a tree and had less disturbance of the turrets. Turrets varied from 0 to 17mm tall (Figure 6) and 14 -15.5mm outside diameter. Internal diameter averaged 9 mm with the smallest being 7mm and largest 10.6mm.

In the heat of the second day, several mating pairs were observed (Cover photo). Male and females were collected for Remko Leis of the South Australian Museum who is currently working on *Amegilla* (*Asaropoda*) taxonomy. Also observed were *Thyreus waroonensis* which were patrolling and investigating various holes. One female was collected (Figure 5).

Bees were observed on three consecutive days with daily high temperatures between 33- 37° and appeared most active in the early morning hours with activity appearing to reduce during the hottest part of the day.

After much searching, only two potential food plants were found: *Eremophila bignoniiflora* (Figure 8) and *Santalum lanceolata* (Figure 9). Other blooming plants observed, including weeds, were in extremely low numbers. I was unable to see any bees actually collecting or feeding.



Figure 4 *A. calva* female building a turret where campfires had been lit weeks earlier.



Figure 5 *Thyreus waroonensis* female, one of a few seen entering and exiting *A. calva* burrows.



Figure 6 One of the taller intact turrets



Figure 7 Long shadows on the unlikely looking site of the *A. calva* colony 29 Sept 2019



Figure 8 *Santalum lanceolata* in early bloom along the Wilson River 30 September 2019.



Figure 9 *Eremophila bignoniiflora* mostly in pod 29 September 2019.

A very active *Iridomyrmex* ant nest was within the first nesting site. The ants cleaned up any bee carcasses but were also seen attacking one mating pair causing them to roll about frantically but did not appear to interrupt the mating.

By third day when we packed up camp, the number of *Eremophila* blooms or buds remaining was low with many plants now almost entirely in seed (Figure 9). There were four hot, windy days (38-39° C) after we left and I suspected this could have finished off the bees. The publicans confirmed that although the holes and turrets were still visible, there was no noticeable bee activity when they checked on 17 October 2019. Therefore I estimate that the bees were active for approximately five to seven weeks in 2019.

Acknowledgements:

Thanks to Remko Leijs for identifying the bees.

Sarah, Margaret and Neil Turner, the publicans Noccundra Hotel

References:

- <http://davotrip.blogspot.com/2009/08/interesting-inverts-burrowing-bees.html>
- <https://www.bushheritage.org.au/blog/burrowing-bees>

Meet your council members continued...

Joshua Grubb—Treasurer



When I was about twelve, I went on an excursion to the insectarium that used to be in Woodend and I have been interested in insects ever since. Having caught the bug, there was nothing to do but learn about and collect insects – I emptied the library of insect books, raised every insect I could get away with and began an insect collection. This interest then led me to complete a Bachelor of Science at Monash University, taking as many entomological subjects as I could find (thanks to University of Queensland) and finished with an honours project investigating how far adult Trichoptera move from the stream (short version: most females stay around the stream, males move a lot more). Currently, I am following my interest by studying for a PhD at La Trobe University, investigating how detritivorous invertebrates recover after bushfire.

I have thoroughly enjoyed being part of the society. I first joined in 2009, then went onto the council in 2013, and became treasurer in 2014, meeting fellow enthusiasts

asts and many new insects along the way, as well as watching the excellent list of publications expand. It's been a privilege to serve on the council and I look forward to many more years of fruitful participation with members.

Peter Carwardine—Council Member—Past President and more



My interest in entomology started when I was a young boy having a special interest in caterpillars from about seven years of age. I joined the Bendigo Field Naturalists Club when I was ten.

It was October 1973 when I was welcomed into the Entomological Society of Victoria by then President Charles McCubbin.

I have been a very committed member of the Entomological Society Council serving two terms as President. On the first occasion I served for two years as was the custom at the time. On the second I served for five years before someone else was ready to step into the position. I have also served as vice president for many years. In the mid 70s I created the non-elected position of excursion secretary, a position to which I am still dedicated.

My prime interest is in Lepidoptera larvae. As such I don't like bugs much. This is especially true of the

Reduviidae and others which stick their proboscis into the back of my much loved larvae. In recent years I have been breeding moths in my south-eastern suburban backyard. I have witnessed 3 generations of the lifecycle of *Utetheisa pulchelloides* the salt and pepper moth. My local area moth population has increased (through my efforts) in numbers and diversity over the years.

Meet your council members continued...

Ray Besserdin—ESV Councillor



Passion drives my life, but two streams of interest dominated my enthusiasm from as far as I remember. Art and Nature. In the latter realm, mainly a fascination for insects, especially Apocrita.

Growing up near semi-rural land flanking the Yarra River offered endless opportunity to explore and collect the then abundant insects, and by my early teens I became obsessed with entomology. I carefully illustrated what I found, combining both passions. An *Acanthucus* sp. membracid I illustrated from my back yard and took into the Museum of Victoria for the late Dr Arturs Neboiss to identify, led me to our Entomological Society. I promptly joined. Quite early I began writing illustrated articles on local wasps and at about age 14(!) became involved with the council. (See p. 131)

I put myself through university, graduating in Biological Sciences at La Trobe, with the aim of exploring entomology as a career, but my passion for art was greater. It was the right decision. Now I explore my love of nature and insects through my sculptured paper artworks and bring it to the public to appreciate. My enthusiasm for the purpose of the ESV includes recently designing its new logo to help modernise our appearance.

My first councillor role included compiling the ESV publication and getting it mailed out. Funny how things go around nearly 50 years on!

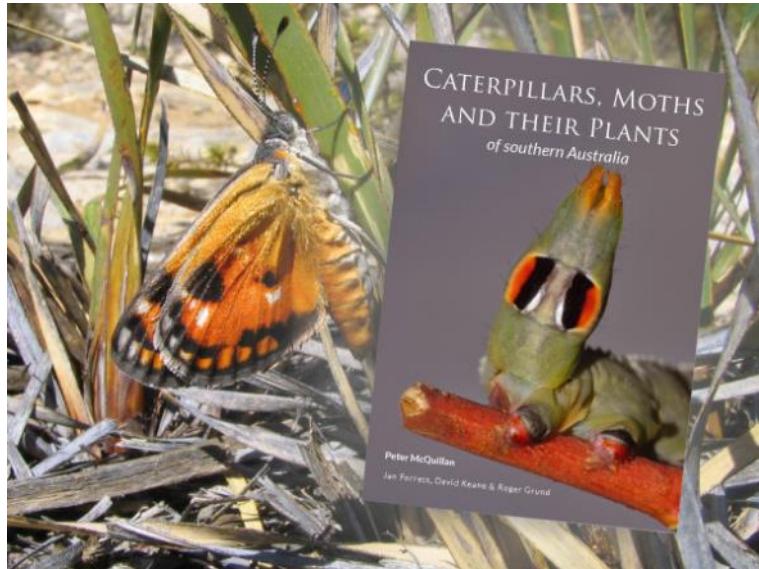
(Ray currently posts out the printed *Victorian Entomologist*, thanks Ray. Editor)

Attention all members

Next year, 2020, will begin Volume 50 of the *Victorian Entomologist*. We are keen to continue to present six issues of the Bulletin filled with items of interest to our membership and capable of attracting new members. For this to occur, there needs to be more contributions of scientific articles, snippets, photos and observations from a wide range of entomological interests and taxa.

Articles can come from members and non-members as well.

Please ask yourself, what can you contribute to the *Victorian Entomologist* in 2020? *Editor*



Caterpillars, Moths and their Plants of southern Australia
by Peter McQuillan with Jan Forrest, David Keane and Roger Grund
Butterfly Conservation SA Inc. 2019

The sheer numbers of Lepidoptera in southern Australia is daunting initially for those keen to identify them. Colour forms, sexual differences variability and seasonal appearances all create challenges.

To add into the mix, recognising the caterpillars that go with them doubles the complexity.

Peter McQuillan and a team of photographers in Butterfly Conservation of South Australia have taken this challenge and have produced a 200 page book that covers almost 50 subfamilies of moths and over 300 species. Each adult is photographed and the caterpillars cover every sub-family and many of the illustrated adults.

An excellent 13 page introductory section takes each family or subfamily and figures a caterpillar from the group and an adult. A clear description of the typical caterpillar and the adult with information on the major identification features is invaluable for pointing to the relevant pages.

Thereafter each page is devoted to a species with very clear images of the adult, caterpillar and often similar moths; headed by a common name with the scientific name beneath. In some cases eggs and habitat images are included. There are paragraphs covering Life history, Food-plant names, Similar species and often specific additional notes.

Maps for each species show distribution records across Australia, including Tasmania.

Presenting so much information is a major challenge for such publications balancing text and images and this is managed well. Occasionally small details in the images are difficult to see; print size is small and technical words occasionally can slow the reader down. But against the publication as a whole these are small matters.

The book is just \$30.00 available through the organisation's website:
<https://butterflyconservationsa.net.au>

Reviewed by Peter Marriott

**Minutes of Entomological Society of Victoria Council meeting
Tuesday 17 September 2019 17:00 Melbourne Museum**

Attendance: Linda Rogan, Julia McCoey, Lyn Meredith, Sharon Mason, Peter Marriott, Peter Carwardine.

Apologies: Maik Fiedel, Joshua Grubb, Ray Besserdin, Martin Lagerwey.

Previous minutes: Minutes of EntSocVic Council Tuesday 19 July 2019 as printed in VE 49 no. 4 p. 92.
M: Julia S: Sharon

President's report: Julia checked in to see how the live exhibits tour went and Peter C. responded that it was the best yet. He really enjoyed having access to the front public section as well back of house areas.

Julia broached the topic of grants and how we may pursue them into the future. The council proposes to establish a grant manager role within council, to maintain a list of available grants relevant to the interests of the society. If interested please contact secretary@entsocvictoria.org.au

Julia presented an invitation to EntSocVic to attend Rippon Lea Estate field day event "Botanica" on the 20th October. Action: Julia to determine arrangements for an Entsoc Vic stall.

Treasurer's Financial report:

The treasurer's report for September 2019:

Account Balances:

General: \$3019

Le Souef: \$8140

Publishing: \$9380

Total Membership: 136

Individuals: 124

Unfinancial ordinary members: 2

Institutions: 12

Unfinancial Institutions: 0

Editor's report:

M: Linda moved that the members' list which has been in printed form in past years, be issued to members via bcc email from June 2020- indicating name, suburb and entomological interest.

S: Julia Passed.

Linda thanked all contributors to the bulletin and looks forward to future contributions.

Publications:

Discussion regarding financing the book Dragonflies and Damselflies of Victoria and Tasmania by Reiner Richter and Ian Endersby resulted in a unanimous vote of support for publishing this book. Printing is soon to commence. The sale price of \$25 for members and \$30 non members was determined.

Peter M requested a discussion at future meeting of the potential to publish the 4th regional booklet "Little Desert".

New Members:

The following new memberships were moved and accepted by council.

Jess Longmuir- M/Josh S/ Linda

Dr Kerrie-Lee Harris- M/Peter M S/Julia

Tamara Morgan- M/Peter S/Julia

Ballarat Field Naturalists Club- M/Josh S/ Lyn

Future events: See back cover of Bulletin.

Meeting closed: 7.30pm

October, 1971

THE JUNIOR PAGE.

"The Victorian Entomologist"

Hymenoptera

by Ray
Besserdm,

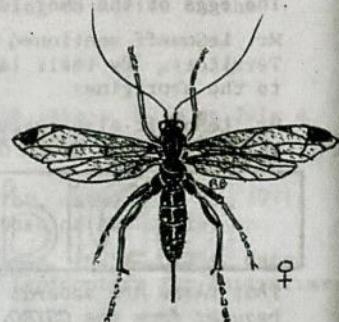
The hymenoptera of Heidelberg.

The summary to follow concerns only various insects of this order which I have collected in the past few years (*ICHNEUMONIDAE*).

The most varied and common wasps found here are the ichneumons; a family widely known all over Australia. Within the family the "Cream-spotted ichneumon", (*Echthromorpha intrictora*) is the most common. It is easily distinguished by its entirely black body with rows of creamy spots along the pluera of the abdomen; it also features a few spots on the thorax.

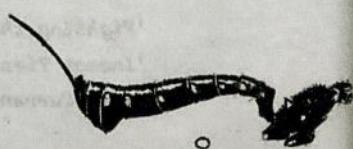
Depending on the sexes, the female has a red frons while the male has a yellow. The dimorphism is also described in the female, like in other species, as in having the abdomen taper intensely from the end to the base. Protruding from the posterior is the rather long and stout cerei, consisting of two egg-laying ovipositors and a defence sting. This is the common set up for wasps with enlarged cerci.

The male however has a long rounded slender abdomen with the usual terminalia type cerci. Legs and antennae are a bright orange, although the males fore and mid-legs are often a yellowy orange. The tarsi number is 5-5-5. Its hind legs are the most powerful, judging by the large stout femur and thickened tibia; the coxa is also large and the trochanter easily visible. Towards the fore-leg the articulation of the legs becomes smaller and finer. The wings are a smoky colour with a semi-circular pterostigma extending posteriorly from the costal vein near the apex. I don't know much about the life histories of this wasp, but I do know it is parasitic on moth pupas of a certain species. The adults emerge usually mid-spring but are frequently found as early as late winter depending on the climatic conditions. The usual habitat are young eucalypts known as (*Eucalyptus obliqua*).



THE BLACK CREAM-SPOT,
ICHNEUMON-
(ECHTHROMORPHA
INTRICTORIA)

NOTE THE POWERFUL HIN,
LEG,



SIDE PROFILE OF THE
ABDOMEN OF A TYPIC
ICHNEUMON WASP. NOTE
THE LARGE SWELLING
THE END A TAPERING
TOWARDS THE BASE.

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Thanks to Ray Besserdin, Ian Endersby and Carol Page for assistance in producing the *Victorian Entomologist*.

CONTRIBUTIONS TO THE VICTORIAN ENTOMOLOGIST

The Society welcomes contributions of articles, papers or notes pertaining to any aspect of entomology for publication in this Bulletin. Contributions are not restricted to members but are invited from all who have an interest. Material submitted should be responsible and original. The Editor reserves the right to have articles refereed. Statements and opinions expressed are the responsibility of the respective authors and do not necessarily reflect the policies of the Society.

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Contributions may preferably be E-mailed to Internet address: editor@entsocvic.org.au, or posted to the Hon. editor in **Microsoft Word for Windows** with an enclosed hard copy. Tables should fit an A5 page with 1 cm borders i.e. 12.5cm width x 18cm height as a maximum size and complex tables should be in .pdf format. Preference will be given to articles with 5 or fewer pages of solid text and articles longer than this will be returned to the author for reconsideration. The main text of the news bulletin is prepared in 9 pt font Source Sans Pro (please do not use fixed point paragraph spacing). The deadline for each issue is the third Friday of each odd month.

Notice to contributors to ESV Bulletin regarding the EBSCO database. All Bulletins backdated to 2010 will be listed in the EBSCO database. Also future Bulletins when they reach sufficient age. If for reasons unforeseen, in part or in full, any contribution does not meet an author's approval for inclusion, please notify council so we may block your work from appearing in the EBSCO database. Current and future electronic copies are also listed on EBSCO.

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DIARY OF COMING EVENTS

Next Meeting Speaker/s to be announced (TBA).

18 February 2020

Note 7:45 pm start

General Meetings:

Month	Date	Planned event
April	21	AGM and speaker TBA
June	16	Speaker TBA/or member's presentations
August	18	Winter excursion TBA
October	20	Speaker TBA/ or member's presentations

End of year excursion either late November or early December 2020 TBA

Council Meetings will be held at Museum Victoria at 5:00 pm
on the following Tuesdays in 2020:

21 January; 17 March; 19 May; July 21; 15 September; 17 November



The Society's Home Page on the World Wide Web is
located at:
www.entsocvic.org.au

Also find us on facebook.



Scientific names contained in this document are *not* intended for permanent scientific record,
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