

Victorian Entomologist



Entomological Society
of Victoria

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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	\$30 (overseas members \$32)
Overseas Member with printed bulletin	\$65
Country Member	\$26 (Over 100 km from GPO Melbourne)
Student Member	\$18
Electronic (only)	\$20
Associate Member	\$7 (No News Bulletin)
Institution	\$35 (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, R. Field, D. Holmes, T. New, K. Walker.

Cover and logo design by Ray Besserdin 2017

Cover photo: *Eupselia beltera* about 1.5 cm long, the caterpillars are thought to feed on Eucalyptus leaves. Photo by Cathy Powers taken at the Pound Bend excursion on 25 November 2017.

**Notes from the Entomological Society of Victoria end of year event
on 25 November 2017 at Pound Bend, Warrandyte State Park.**

Thunder storms and wet weather had threatened, but on the last Saturday in November the weather was mostly kind, if a bit sultry for the combined event with the Friends of Warrandyte State Park (FOWSP).

Around 2:30 pm. a group of around 20 participants, a mix of families from the shires of Manningham, Banyule and Nillumbik, took part in the Great Aussie Insect Hunt, a booked event that was part of the Spring Outdoors activities. The activity was run by EntSocVic with the assistance of FOWSP. Participating youngsters were keen and their eyes were sharp. The attendees were assigned to smaller groups, each led by a EntSocVic member in a general search for insects. There were three special areas of interest: ants, aquatic invertebrates and a colony of Imperial Blue Butterflies, *Jalmenus evagoras*.



Julia McCoey with some of her group in the Great Aussie Insect Hunt at the gorgeous Pound Bend Picnic Ground along the Yarra. Photo: Carol Page

Peter Muller had arrived early in the afternoon to do a quick survey of some of the ants in the Pound Bend area. His report follows:

Peter discussed the general the biology of ants, the role of ants in in the natural world and how they are a important part of biodiversity. He explained that his project is to confirm whether ant species could be determined by the ant mound profile. He demonstrated three different common *Myrmecia* ant mound profiles; *Myrmecia, forcifata*, *Myrmecia simillima* and *Myrmecia pilosula*. *Myrmecia* species are commonly known as bull ants. Participants were able to see the style of each species mounds and the respective mound inhabitants. Captive live specimens

were passed around for observation at close quarters and comparison with each mound.



Peter Muller introduces the group to some local bull ant species.
Photo: Jason Cochrane

Myrmecia forficata and *Myrmecia simillima* are part of the larger *Myrmecia* “Bull Ant” group. They are a similar size with *M. simillima* just a touch smaller than *M. forficata/pyriformis*.



***Myrmecia forficata* nest mound.**

Usually elliptical and convex; mature colony nests are up to 70cm length x 15-20 height. Almost always, undisturbed nests will have a covering of leaf litter, small sticks and eucalypt fruit. The nest entrance/exit hole is often up to 10cm from the perimeter skirt of the mound. Nest mound pictured is atypical, slightly conical due to the soil spoil resting around the bush. *Myrmecia forficata/pyriformis* have irregularly spaced mandible teeth and characteristic narrowing at the mandible base.



***Myrmecia simillima* nest mound.** This nest pictured, not from Warrandyte but typical of the species. Mound profile flatter and less elliptical. Diameter about 50cm. Excavated soil making up the mound covered with leaf litter and eucalypt, but sparser than *M. forficata*. *Myrmecia simillima* are separated from other *Myrmecia* by large evenly separated mandible teeth that are not narrowed at mandible base.



***Myrmecia pilosula* nest mound.** This species heads a complex of smaller *Myrmecia* “Bullants”. Mature colony nest profiles are often conical and prefer small stone fragments for mound covering; the more stone available, more on mound. Conical skirt base diameter 40 cm x 15 high. *M. pilosula* is a black ant about 12-15 mm with distinctive yellow mandibles. *M. pilosula* known as “Jack Jumper” is a common “bullant” in most habitats, has a potent sting, and is noted for vigorously defending its nests.

***Jalmenus evagoras*.**

Searching the previous week, Linda Rogan had found a very active colony of *Jalmenus evagoras* right beside the picnic area carpark. On the day, the children were instructed to watch out for a wattle tree with a lot of ant activity on the trunk and limbs. Once they approached the *Acacia dealbata* with the colony, they were excited to find caterpillars and pupae that were attended by the ants and even some adult butterflies. Linda explained



Jalmenus evagoras butterfly colony attended by *Iridomyrmex* species ants, likely *rufoniger* at Pound Bend. Photo by Linda Rogan

that this particular species of butterfly is dependent on the ants to protect them from predators such as wasps. One child asked, 'What do the ants get out of this?' The answer was the ants are able to feed on nutritious fluids that the caterpillars exude. It was noted that unlike the Eltham Copper Butterfly, *Jalmenus evagoras* lives its whole life cycle above ground usually upon a single tree making it one of the easiest ant dependent species to observe and study. Each family was given a DVD that Linda had made with photos explaining the whole life cycle and interrelationship of the butterflies and the ants.

Aquatic invertebrates. The third and very popular area was the aquatic invertebrates organised by Maik Fiedel. High water levels and fast currents due to recent rain made it difficult to obtain aquatic invert diversity from the Yarra. He was able however to dip net fresh water glass shrimp, *Parataya australis*, and Waterboatman *Corixidae* out of the Yarra, just next to the boat ramp.



Fortunately one of the FOWSPIans, Gray Ardern, who lives locally, helped locate several ponds/dams in the area that were more productive. He took Maik to his backyard pond, where they found a few water beetle larvae (Dytiscidae), likely to be *Cybister* sp. These diving beetle larvae are aquatic and prey on small invertebrates and sometimes also vertebrates like tadpoles and small fish.

They then visited a series of dams up the road, where the dip net retrieved numerous Mosquito fish, *Gambusia* sp., which were not returned to the water body. Also, a large number of backswimmers, Notonectidae, damselfly nymphs, Coenagrionidae, aquatic snails, Planorbidae and a hand full of yabbies, *Cherax destructor* were found in the dams. All the animals were taken to the picnic table near the boat ramp and divided up in multiple trays and containers. Here the children were eager and happy to sort through the animals with small nets and have a close up look.

Many thanks to Julia McCoey and Peter Carwardine who each led a group and all EntSocVic and FOWSP who made this afternoon activity a success.

After 4:30 pm. the members of the Entomological Society made their way down to the area of the FOWSP Indigenous Plant Nursery. While the light trappers searched for suitable areas to set up, others relaxed with a cuppa and or toured Frogland, the indigenous seed and demonstration garden and the pollinator garden as well as the nursery itself. Last year around 35,000 plants were grown for revegetation of Park areas and also for sale to local properties. The Friends group works closely with Parks Victoria rangers but the nursery and surrounding gardens are entirely run by the voluntary friends' group and the part time staff they hire.

The Folly, a shelter by a dam near the nursery, was the spot for a BBQ. We were soon serenaded by the unrestrained tones of Peron's Tree Frog, also known as the Maniacal Cackle Frog.

Gray Ardern kindly shared some of his thoughts about the history of the Pound Bend Area.

Not content with outlining the human history of Pound Bend, Gray asked those assembled to imagine the days before there was any life on earth. He drew word-pictures of the deep sediments being pushed up and wrinkled by the slow but inexorable force of colliding continental plates, and the erosion of that elevated land mass by the ancient Yarra River. From this perspective, the tens of thousands of years of habitation by Australia's first peoples, their dispossession, the Gold Rush and white settlement – all these events occurred as a single grain of sand fell through the hourglass of time. Nevertheless, due attention was given to the changes that have taken place at Pound Bend since the creation of Warrandyte State Park and the birth of FOWSP 35 years ago.



EntSocVic members and FOWSPians examined aerial maps showing changes in Pound Bend land use since 1931
Photo by Linda Rogan



Two light sheets were set up under the protection of the Bendigo Bank marquee.
Photo Steve Curle

Next Peter Marriott spoke about the light trapping that was occurring as the late evening dark settled in about 9 pm.

Four sheets were set up. Ken Harris set his up near 'The Folly'. Two sheets were set up facing opposite directions under a pop-up shelter with Marilyn Hewish, Cathy Powers and Peter Marriott in attendance. These were on a track downhill from 'The Folly'. The fourth sheet using a UV light was set up nearby with Peter Carwardine. The wind was light but there were rain showers so the shelter was most welcome in keeping the globes dry and enabling people to observe and photograph the insects attracted to the lights. The combination of very warm, humid conditions, little wind and even the light showers meant many things were flying and landing on the sheets. 142 species of Lepidoptera were recorded; Ken photographed 43 on his sheet and the rest at the other site. Ken had recorded 45 species on 13 Dec. 2011 during the previous society survey. As well there were numerous species of flies, Neuroptera, wasps, beetles, cockroaches, caddisflies, true bugs and also small spiders. One tiny insect had us mystified for some time. Its antennae, stance and general appearance was moth-like, the hairs on its back and wings were like a caddisfly. It looked like it was half way between the two orders. It took an expert from Canberra to place it as a microcaddisfly in the family Hydroptilidae.



Tiny microcaddisfly in the family Hydroptilidae. Photo Cathy Powers

Many of the finds have already been posted on the special Bowerbird site set up for the records (search for Pound Bend). It was a full on night and the team were photographing all the time until the generator ran out of petrol about 11.15 pm.

Thank you to Peter Marriott for reporting on the light trapping.

See also:

www.bowerbird.org.au/projects/14241/sightings

Please enjoy the following photos of a selection of insects seen on the night.

Photo R: *Wingia aurata* This Caterpillar of this species could be taken for a snail. It lives in a tough spiral cocoon embodying leaves of its food plant. The caterpillar has a brown head and a stout creamy body. It feeds on gum trees. Photo: Peter Marriott





Captions p.7

1. *Cryptophasa rubescens* The larvae feed on *Acacia* species, including *Acacia longifolia* and *Acacia linifolia*. They bore in the stem of their host plant, tying cut phyllodes at the entrance to the bore. They feed on the phyllodes. Photo: Cathy Powers
2. *Phrataria transcissata* The natural posture of the moth has the wings partly folded above its back. Photo: Cathy Powers
3. *Sceliodes cordalis* Poroporo Fruit Borer eggplant eggfruit caterpillar a major agricultural pest. Photo: Cathy Powers
4. *Tebenna micalis* small thistle moth These caterpillars are green with black spots. They feed on various species in ASTERACEAE, including :Capeweed (*Arctotheca calendula*), Spear Thistle (*Cirsium vulgare*), Fleabane (*Erigeron canadensis*), Scotch Thistle (*Onopordum acanthium*) and Everlasting Daisy (*Xerochrysum bracteatum*). Photo: Cathy Powers
5. *Macrobathra heminephela* The Caterpillars of this species appear to feed exclusively on Silver Wattle (*Acacia dealbata*). The adult moths have dark brown forewings with bold cream patches. The wingspan is about 2 cms. Photo: Cathy Powers
6. *Macrobathra desmotoma* have been found feeding on Green Wattle (*Acacia decurrens*) The caterpillars live in a shelter composed of leaflets joined with silk. Photo: Cathy Powers

Captions p.9

1. *Hesperilla donnysa* is the Varied Sedge-skipper Butterfly. Its larvae feed on the common saw-sedge *Gahnia radula*. Unusual to get this butterfly of the light sheet at night. Photo: Ken Harris
2. *Nacaduba biocellata* This is an unusual sighting, especially with it coming to the light sheet. This species has only been recorded once in the (nearby) Bend of Islands over the last 8 years. Photo: Frank Pierce
3. *Ledromorpha planirostris* A nymph of the Flat-head Leafhopper; shaken from a tree onto an upturned umbrella. Photo: Frank Pierce
4. *Araneus psittacinus* A tiny Orb Weaver that also shaken from a tree onto an upturned umbrella. Photo Frank Pierce
5. *Scaptia auriflua* is the Flower-feeding March Fly in the family Tabanidae. It feeds on nectar, whereas females of most of its family are blood suckers. Photo Ken Harris
6. *Anoplognathus velutinus* is the Hairy Christmas Beetle Photo: Ken Harris
7. *Bandidus canifrons* More than 10 were attracted to the light sheet on the very warm, humid night with light showers. Photo: Peter Marriott



***Iridomyrmex purpureus*: Meat ants on display.**

By Maik Fiedel MFiedel@museum.vic.gov.au
Coordinator Live Exhibits, Melbourne Museum



Figure 1 Meat ant worker, *Iridomyrmex purpureus*
Source: Museums Victoria

Melbourne Museum's Live Exhibit Unit supports several galleries and exhibitions with live animal displays and maintains over 100 species of invertebrates. Most of the invertebrate species are bred on site, while others are collected throughout the year and maintained as non-breeding stock.

Several ant species are kept, such as Green Tree Ants *Oecophylla smaragdina*, bull ants *Myrmecia* spp., black house ants *Ochetellus glaber*, Jumping Jacks *Myrmecia pilosula* and meat ants *Iridomyrmex purpureus* (Figure 1).

The Bugs Alive Exhibition has a large permanent meat ant display, which is open to the public 363 days a year (Figure 2). This display contains workers only as meat ant nests can be several metres deep and would need to be dug up in order to regularly retrieve a queen or brood (eggs, larvae and pupae). The exhibition is topped up with animals twice a year.

Their diurnal activity and foraging behaviour makes meat ants an ideal species for display.

Live Exhibits staff have been surface harvesting worker ants from the same colony for over a decade, with no negative impact on that wild colony. Worker ants live between 6 and 12 months and dead ants will be piled up at the colony's cemetery site by other workers. We allow the cemetery to remain, as it is an important part of the social structure shown in our exhibit.

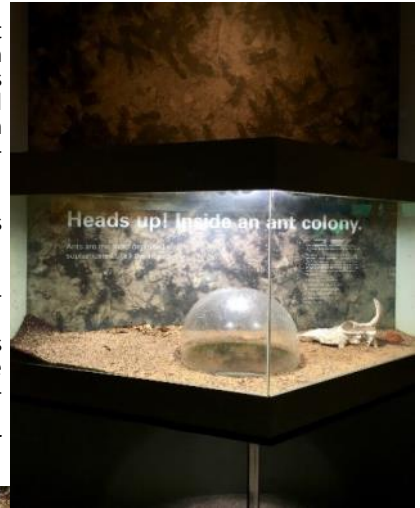


Figure 2 The meat ant exhibit in Bugs Alive, Melbourne Museum.
Image: Maik Fiedel



Figure 3 Meat ant nest mount on road side. The ants will keep their nest entrance clear and form large areas of gravel patches. This is why this species is also referred to as "gravel patch ants". Image: Maik Fiedel

Meat ants are also called gravel patch ants and the reason can be seen easily when examining their nest entrances (Figure 3). When maintaining and excavating their chambers, the ants move hundreds of thousands of small gravel stones to the surface and spread them around the entrance. The bare gravel patch that creates can sometimes be several square metres in diameter.

These distinctive patches are easily located within dry sclerophyll eucalypt forest or on road sides, even when driving past at high speed.

When Museum colony numbers are getting low, Live Exhibit staff collect more worker ants from our site in Bacchus Marsh. An estimated 400 to 600 ants are collected at once and transferred to the Bugs Alive exhibition immediately after.

Our collecting technique for this species is the least invasive one for the ants and the nest and is also the most efficient for the Live Exhibit staff.

- Equipment needed for meat ant collecting:
- Sturdy tub with tight fitting lid (mesh cut out preferred)
 - Vaseline
 - Gumboots
 - Egg cartons
 - Hand held vacuum cleaner including spare battery

In preparation, we apply a 3-4 cm wide strip of Vaseline to gumboots, vacuum cleaner nozzle and the top ridge of the tub. The strip of Vaseline works as a barrier, which ants can't breach and this works better than oil.

Once the gravel mound is located, the initial collecting process is quick and straight forward. The process of stepping onto the mound and starting the hand held vacuum cleaner, agitates the ants and they start pouring out of the entrance holes and



Figure 4 Meat ant workers are surface harvested via a hand held vacuum cleaner. Image: Tamara Morgan



Figure 5 Meat ants reacting to vibration on the nest mound and attack immediately. Image: Tamara Morgan Live Exhibits, Melbourne Museum

attacking one's gumboots and the vacuum cleaner nozzle (Figure 5). The ants won't breach the Vaseline strip (Figure 6).

The vacuum cleaner is held at one of the entrances and the ants are sucked into the filter. It is important not to use vacuum cleaners that operate with a high speed spinning force, as this will damage the ants.

After 2 minutes or when the filter is full, the contents are tipped into the tub that has the egg cartons inserted and a Vaseline strip around the ridge. The ants will immediately try to disperse within the tub and it can be seen if you need

to continue collecting to obtain the desired numbers. If numbers are low, it is wise to collect from another entrance.

After the harvest, the ants are brought straight back to the museum to be added to the existing colony.

Before they are added, all the ants within our exhibit and the new batch must be sprayed down with water. This is to help wash away the pheromones so that the ants won't be able to recognise the new arrivals. That will reduce aggression within the colony and we find very few losses are usually visible.

The ants and the egg cartons from the tub are gently shaken into the exhibit. This shifting usually works well, as the animals will hold on to the cartons. This makes shifting hundreds of ants so much easier, without damaging any.

After adding all of the newly collected animals to our colony, we feed them with sugar solutions in a bottle lid. All of our ant species receive honey and/or sugar solutions. However where larvae are present, we supply dead insects and protein as well. It is only the larvae that have mouthparts that can process solids.



Figure 6 Worker ants can't breach the Vaseline barrier on gum boots and vacuum cleaner nozzle. Image: Tamara Morgan.



Figure 7 Freshly harvested worker ants inside the transport tub. Image: Maik Fiedel Live Exhibits, Melbourne Museum

SIMILAR BUT DIFFERENT
Cathy Powers koolahcmp@gmail

One of the wonderful things about retirement is having the time to find new interests that stimulate your brain and discover a part of nature that was not on your radar. In 2012 Marilyn Hewish (yes I blame her) introduced me to what being a moth-er is all about. It was the right time in my life and I was looking for something that was new to me but within my minimal scope of science.

Now, six years later, I am involved with the Moths of Victoria team, volunteer at Museums Victoria and set up a light-trap at least once a week at my home in the Brisbane Ranges, Victoria. Each time I set up and wait, nature does not disappoint and often there is something new that arrives.

Volunteering my time to help sort and catalogue the moth specimens at the museum has facilitated my ability to understand the structure of moths, the major (and some minor) features that assist with identification and provided me with a greater appreciation of those involved with MOV up to this point. My admiration and appreciation of Peter Marriott and Marilyn Hewish increases every time we work together or when I am afforded an opportunity to attend a 'mothing' event.

When do interests become a hobby or a passion? I think I am almost at the passion level. Each USA summer, I travel to visit family and convince my sister to take a vacation in a remote area. I have searched for orchids in mystical places but now I have a keener interest in things flying about the habitat we visit.

One such time was in northern Minnesota. Minnesota is known by the slogan "Land of 10,000 Lakes" and an experience in Big Bog State Recreation Area is a tale for another time but I did find a moth during our walk. There are wonderful State parks in the northern area and we rented a cabin in July. I found the balcony overlooked a valley and it seemed to me that it was a perfect spot to set up a light-trap. Unfortunately, I was unprepared with equipment but not to let that deter my idea I asked the site manager for a lantern. One was provided with the appropriate question "What do you need it for?". My answer was to attract and photograph moths. The response was "we don't have any moths in this area". Now the challenge had been issued.

I took a sheet off the bunkbed (thank goodness it was white), stretched it over the balcony, weighed down the edges with rocks, put the lantern on the wooden floor and waited for dark. What arrived in a very short time certainly looked like moths to me. The amazing thing was, many of them looked very familiar. There is a good website (URL: mothphotographersgroup.msstate.edu/Plates.shtml) which has a digital guide to moth identification state by state or by moth Families. This site certainly assisted me with determining the genus and even species of some of these visitors.



The balcony in northern Minnesota:
'a perfect spot to set up a light trap'

Some examples and our 'look-alikes' are as follows:



Apamea amputatrix – described in BOLDSYSTEMS as a moth of the family Noctuidae. It is found in most of North America and the larvae feed on a wide range of host plants including vegetable crops.



Similar Australian Noctuidae – *Neumichtis saliaris* (to be featured in Moths of Victoria Part 9)



Ectropis crepuscularia – described (Museums of University of Alberta) to be in the Geometridae family. It is a light grey moth with indistinct mottling and larvae feed on a wide range of plants such as conifers.



Similar Australian – *Ectropis fractaria* (featured in Moths of Victoria Part 7)



Synchlora aerata – described (Museums of University of Alberta) to be in the Geometridae family. It is the only emerald with a white dorsal line along the green abdomen and the larvae feed on flowers, particularly of composites (Asteraceae).



Australian – *Chlorocoma carinaria* (featured in Moths of Victoria Part 4)



Eilema bicolor

- described (Museums of University of Alberta) to be in the Arctiidae family. The comparatively large hindwing and a yellow forewing costa distinguishes this species and the larvae feed on lichens growing on conifers.



Australian - *Palaeosia bicosta* (featured in Moths of Victoria Part 2)



Dysstroma hersiliata-described (bugguide.net) to be in the Geometridae family, formerly *Chloroclysta hersiliata*. It has a solid orangish medial area while other forms have a completely grey forewing. The larvae feed on leaves of currant (*Ribes* spp.)



Australian - *Epyaxa subidaria* (featured in Moths of Victoria Part 3)



Hyles lineata - described (Museums of University of Alberta) to be in the Sphingidae family. It is described as a narrow-winged heavy bodied moth with a striped forewing and pink hindwing. The larvae are polyphagous with a wide variety of herbs, shrubs and even trees in many families being recorded as hosts.



Australian - *Hippotion scrofa* (featured in Moths of Victoria Part 1)

The pleasure of photographing moths is provided even at rest stops and being observant can have benefits. The beauty below left was resting on a sign:

The following additional images are just for your pleasure. I will be returning with camera in hand and will be able to get improved images with my updated macro lens. Perhaps I will find some of the many macro-moths just to add to my collection of unknowns.



Furcula modesta on a roadside sign



Clostera albosigma



Scopula limboundata



Unidentified moth

All photos are by the author.

Cathy Powers (a moth-er)

Vale - David Robert Holmes

24 October 1918 - 18 December 2017

Peter Marriott with Mark Hunting, Catriona McPhee and Marilyn Hewish

David was a long-time member of the Victorian Entomological Society. He was an office bearer and was appointed a life member in 2002. He and his wife Joyce regularly attended meetings and field trips and contributed enormously to the organisation. Mark Hunting, who became president for a while, told me he was 13 when he first made contact with David who taught him how to properly collect and document. Mark was one of many who were so inspired and mentored.

Moths and butterflies were a large part of David's life. It wasn't just a hobby, more like an obsession. He was a collector for over 70 years, and built up the largest private collection in Australia at the time.

During the 1990s he delivered more than 12,000 butterflies and 12,000 moths to the museum. You can learn a lot about David from the labels: his meticulous moth setting and record-keeping; where he had lived, his contacts and his holidays to Bright, Cann River, and right around Australia. Everyone who knew him, his family, Senior Scouts and mates, were familiar with his net and lights.

In that time the Melbourne Museum in Russell St mounted a major display of David's Butterflies in *Skydancers - Butterflies of the World*. Other specimens can be seen in the *Bugs Alive!* exhibition and four of his giant Hercules Moths are on display in the *Inside Out Exhibition* as some of the Museum's most beautiful and intriguing objects.

When the museum moved into its new building in 2000, space became available for storage of his collection. New drawers and cabinets were obtained for the moths but the butterflies are still in his original cabinets, quite a few of which he made himself from fruit-boxes from his orchard. Altogether there are over well over 500 drawers - packed with beautifully set specimens.

His collection is an amazing record of Lepidoptera internationally and locally. Through his collection of moths almost every night for 60 years at Red Hill and then Dromana we have information about how populations ebb and flow, how urban changes on the Peninsula affect the wildlife and how those small creatures adapt to changes.

Peter met David after he had presented most of his collection to the Museum and he was friendly, humble and keen to talk about everything; about his moths, his butterflies and his trips - and we became friends. Surprisingly there were thousands more moths and butterflies still at his home in more cabinets or carefully folded in paper in large drums; David had been exchanging and buying Lepidoptera from all over the world and Australia.



This beautiful specimen from came to David from the highlands of PNG.

Australia-Vic
Kilaka
D.R. Holmes leg
3-4 NOV 1950

Australia-Vic
Red Hill
D.R. Holmes leg
23-11-1953

D. R. Holmes
5-2-1976
AUSTRALIA-VIC
Bright

V. GROENENDAEL
Java 2001
Indonesia
Tjimeang
2-12-1957

D. R. HOLMES
YEPPOON
SND AUST.
9-10 1956

In his last 20 years he spent many hours setting them and sending them to the Museum, the last one just after he moved into the aged care facility in mid 2017.

He had many stories to tell:

David collected his first butterfly in New Guinea during the war.

He made friends all over Australia. Archie May, an old bloke at Noorinbee in far east Gippsland, had a collection which he gave to David when Archie became blind.

Another fellow, seeing his light sheet, stopped to share mothing stories. That collector was John Landy – before he became Victoria’s governor.

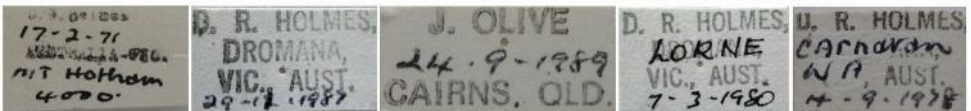
One of his overseas contacts was a Dutch doctor, Jan van Groenendael, and they exchanged Indonesian butterflies and moths. The doctor and his wife were working in Indonesia when the Japanese invaded. They were interned and their house and possessions destroyed by the time they were released. However the collection had been safely stored by a Japanese officer and some of these saved specimens are in David’s collection.



David Holmes (right) and Archie May in April 1980

Many of David’s entomological friends exchanged material and his own specimens can be discovered in museums from Amsterdam to Canberra.

Though David’s butterflies are now quite valuable in dollar terms his collection’s intrinsic value is more for its contribution to science and knowledge of our natural world, to the scientific literature and in the DNA. In another 99 years it will all still be there, perfectly preserved for future generations to study and admire.



**Minutes of the Entomological society of Victoria Council Meeting
Tuesday 16 January, 2018, Melbourne Museum**

Attendance: Peter Marriott, Peter Carwardine, Joshua Grubb, Julia McCoe

Apologies: Linda Rogan, Ray Besserdin, Maik Fiedel, Steve Curle

Treasurer's Report:

Oct 2017	Nov 2017
Account Balances:	Account Balances:
General: \$ 2058	General: \$2058
Le Souëf: \$7955	Le Souëf: \$7955
Publishing: \$25702	Publishing: \$18416

Dec 2017	Membership:
Account Balances:	Total non-institutional: 136
General: \$1792	Unfinancial: Lots, due to beginning of year
Le Souëf: \$7955	Institutions: 10
Publishing: \$18977	

M: Joshua Grubb S: Peter C, carried

Publications Report: Nil for this month

Victorian Entomologist:

Ray Besserdin proposed to drop the print run to 140 as there is a build up of back copies. It is important to have some back copies but too many are a storage issue. If we run short then the e-version is an immediate back up and print run can be increased accordingly.
S: Peter M, carried

We have been approached by the Biological Heritage Library for lodgement of our magazine. It is an international library initially established in the US but now including on-line material from major institutions world wide. The Australian content is co-ordinated in MV. (see <https://www.biodiversitylibrary.org>). The council discussed the matter and propose that we should begin with our earliest magazines (Wings and Stings). The State and Australian National Libraries do get the magazine already. This will make the *Victorian Entomologist* available to researchers more easily than at present. Affects on membership was discussed and further input by members would be welcome.

Membership:

Josh Grubb reported that membership reminders were sent out for 2018 late in 2017 and will be followed up with another shortly.
Welcome to the following new members:
India Wedge (Bundoora);
Anthony Kurek, Ben Kurek and Daniel Kurek, East Bentleigh

At the next council meeting we will discuss ways to increase efficiencies in management of membership lists, payments etc. Peter C. to follow up on methods of printing addresses directly on to envelopes to save time there.

Meeting Facilities:

With the Museum alterations to the Discovery Centre it is necessary to relocate and discussions have been held with the Museum about this matter. The Society has had a very close association with the Museum since its inception with direct benefits to both organisations. The Museum is most supportive of our continued meeting at the present site; the EntSocVic council and Melbourne Museum will formalise the arrangements with a Memorandum of Understanding to replace the informal agreements that have applied back into the 1930s. Our meetings will be now held at the Activity Rooms which are located on the ground floor to the left of the main foyer and above the old Discovery Centre.

Membership of Council:

Discussion was held about the need to have more members being involved as members of the council. We would encourage members to consider this vital part of our organisation. The Council manages the finances, publications and programs of the organisation and meets on alternate months to general meetings. The council and office bearers are elected at the AGM and we would encourage members to join the council.

Future meetings:

The first meeting in February will be a members' night. Peter M. will prepare a notice for everyone.

The April meeting will be the AGM, June and October will be regular meetings, the August meeting will be an excursion outside the regular meeting room and the December meeting (well end-of-year meeting) will be held as in previous years in conjunction with a Reserve or natural history property where we can do some survey and educational activities as well as join together for a BBQ. There are several speakers who need to be confirmed for particular dates but other suggestions are most welcome from our general members.

Discussions covered a number of speakers who will be followed up but suggestions are always welcome from members about how we can maintain our very high level of interesting and thought-provoking topics/speakers. The very popular members nights will be continued where we can share our own particular insect (and spider) passions.

Meeting closed.**Notice of Annual General Meeting 2018**

Please be advised that the Annual General Meeting of the Entomological Society of Victoria Inc. will be held on Tuesday 17th April 2018 at 7:45 pm at the Activity Room Melbourne Museum.

The purpose of the meeting is
to confirm the minutes of the previous Annual General Meeting;
to receive and consider the annual report of the Council on the activities of the Association during the preceding financial year; and the financial statements of the Association for the preceding financial year submitted by the Council in accordance with Part 7 of the Act;
to elect the members of the Council; and
to confirm or vary the amounts of the annual subscription.

The positions of President, Vice President, Honorary Secretary, Honorary Treasurer, Editor, and up to eight other Councillors are open and nominations are invited.

A member is eligible to be elected or appointed as a Council member if the member is 18 years or over; and is entitled to vote at a general meeting.

Nominations, in writing and signed by the proposer, seconder and the nominee, must be in the hands of the Council seven days prior to the Annual General Meeting.

Nominations may also be made, with the consent of the nominee, at the AGM.

Nomination forms are available from the acting secretary,
secretary@entsocvic.org
and/or at the February meeting.

OFFICE BEARERS

- PRESIDENT:** Peter Marriott 8 Adam Street, Bentleigh, 3204 ph. 9557 7756
- VICE PRESIDENT:** Peter Carwardine, 5/154 Grange Road, Carnegie 3163.
ph. 9571 8958
- HON SECRETARY:** secretary@entsocvic.org.au
- HON TREASURER:** Joshua Grubb, 61 Meakin St. Watsonia North 3087 Vic. ph.0417381109
treasurer@entsocvic.org.au
- HON EDITOR:** Linda Rogan, 16 Marden Dr Briar Hill 3088 ph. 9435 5806
editor@entsocvic.org.au

OTHER POSITIONS

- EXCURSIONS SEC:** Peter Carwardine, 5/154 Grange Road, Carnegie 3163.
ph. 9571 8958
- IMMEDIATE PAST PRESIDENT:** Patrick Honan phonan@museum.vic.gov.au
- WEBMASTER and FACEBOOK:** Vivienne and Steve Curle, webmaster@entsocvic.org.au
- COUNCILLORS:** Ray Besserdin, Steve Curle, Maik Fiedel, Julia McCoe.

Thanks to Ray Besserdin, Carol Page and Ian Endersby 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.

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DIARY OF COMING EVENTS

Next Meeting: Members' presentations
20 February 2018

**Meetings will now be held in the Activity Room Melbourne Museum
Note 7:45 pm start**

Members' presentation nights are a popular way to communicate to other members your entomological interests and projects you are involved in. In general presentations are brief allowing as many as possible to be presented on the night. Please notify secretary@entsocvic.org.au about what you will present.

General Meetings:

Month	Date	Planned event
April	17	AGM and special speaker
June	19	General meeting with speaker
August	21	Excursion and date to be confirmed.
October	16	TBC
November/December		End of year excursion details to follow.

Council Meetings are held at the Museum Victoria at 5:15 pm
on the following Tuesdays in 2018:
20 March, 15 May, 17 July, 18 September and 20 November



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



Also find us on facebook.

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