

Ken Walker (kwalker@museum.vic.gov.au) Museums Victoria. Edition 59.

Hi All – As 2018 finally winds down and we let out a sigh a relief it is good to reflect on what has been discovered and achieved.

For me, I have found that I seem to have the “gift of the gab”. The Museum’s media centre has just sent me a review of my media appearances for this year. Apparently, I did 35 interviews (most on radio) which “apparently” reached an audience of 2.1 million people and which “apparently” was worth almost \$700,000 in museum advertising. They want me to keep talking I now also many museum collection tours for members of the public, open museum days and to official visiting dignitaries and so I have become a story teller of science and a voice for the specimens in the collection.

I seem to be able to recall a story for most situations. I was on the radio last Saturday morning when a lady phoned up saying she had moths in her bathroom and toilet. So I initially suspected “bathroom or drain flies” (or Psychodidae) which due to their very hairy wings look something like a small moth but then she informed me that these moths were eating her clothes. That put me on the right track of clothes moths (or *Tineola bisselliella*). Now when you something eating holes in your clothes you need to act immediately and most likely the clothes may contain eggs, larvae, pupae and adults – what to

do? Well, you could call in a pest company and fumigate the house (at some considerable expense) but I remembered an old tried and tested home grown technique used to kill clothes moth. On a sunny day, put the clothes into a number of black plastic garbage bin liners, seal the tops with the short, paper covered pieces of wire and hang them on your outdoors clothes line. The sun will heat up the contents inside the plastic bags and literally cook all stages of the clothes moth. I suggested to the caller than while she had her clothes on the line to take a wet cloth into her bedroom and to wipe in all of the right angled joins in her clothes cupboards as this is where the adults like to sit and the pupae like to pupate. Apart from squashing the occasional moths in the bathroom and toilet these actions should reduce if not rid her of her clothes moth problem. The caller went away happy with a list of things to do.

Over the years, I have picked up many tips and tricks on how to treat insect related problems. Of course, the first step is to correctly identify what the insect is before offering advice. Identifying insects from talk back radio is a learned skill as the caller often does not provide you with the information necessary to make an identification. The lady with the clothes moth problem initially began her descriptions with: "I have a number of small moths about 5 cms in length ..". I immediately stopped her to ask whether she meant 5mm or 5cm because I had begun to think of a range of large moths which did not match her word "small". She laughed and corrected herself to 5mm but her initial 5cm comment would have sent me in completely the wrong direction. I need to build a mental image of the insect from the description and hopefully I can then confirm the identification with some habitat or damage details. Most of my radio talk back calls are on various ABC radio segments and of course they all work in the same building and

know each other so the inside joke amongst them is to get a caller who can stump me and I cannot work out the caller's insect. Of course what they do not know, is that for my first 20 or so years at the museum, I have answered literally thousands and thousands of telephone public enquiries and I believe I have been asked to identify most if not all of the common Victorian insects and spiders. The only time I hesitate is when the caller uses a common name that is local name probably just to the caller's area. Then I ask more questions – I basically play insect detective and narrow down my mental search while building a mental image of the insect or spider in question. That's a learnt skill over many years and now I find it fun and a challenge rather than when I first started I found it very scary and I often had to say – “Sorry, I don't know”.

Let's look at some of the fascinating images posted during 2018.

My favourite image was the 5 legged cane toad – amazing. I recently read an article about the invasive movement of the cane toad from eastern Australia to the west. Apparently, the toads at the front of the invasion, probably around near Kununurra which is where this image was taken, have longer front legs and can move faster than similar toads at the back of the invasion which have smaller front legs. I wonder whether this front of the invasion population has a few genetic leg length variations that cause the 5th leg to develop.



Cane toad *Rhinella marina* Location: Kununurra, WA Photos by Simon Ong



This wonderful camouflage image of *Monistria discrepans* Location: Gum Flat NSW Photo by John Courtney

First ever images on BowerBird were always a treat.



Huntsman *Neosparassus macilentus* Location: Blackwater QLD by Laurence Sanders



Paraembolides boycei Location: Rangeville QLD Photo by Glenda Walter

Tales of the weird and wonderful

How did this fly get impaled on a piece of piece of marram grass? We still do not have a good answer.



Muscidae Location: Marion Bay TAS Photo by Kristi Ellingsen

Something spooky in the night

The shining eyes of an agile wallaby at night. If you look hard you can just make out the body shape of the wallaby.



Agile wallaby *Macropus agilis* Location: Douglas QLD Photo by Matthew Connors

Nick Porch's amazing springtail images.



Wolmersleymeria Location: Warburton VIC Photo by Nick Porch



Entomobrya Location: Sherbrooke VIC Photo by Nick Porch

And, the cute and cuddly or not so cuddly



Tachyglossus aculeatus Location: Braeside VIC Photo by Adam Edmonds



Antechinus agilis Location: Jeeralang Junction VIC Photo by Matt Campbell

I have said before that as a museum curator, I mainly see dead insects and so one of the many joys for me from BowerBird is to see live insects and to see them interact with their habitat and themselves. One such topic I investigated were mating images to look at how various insects mate and the sometimes dimorphism the two sexes exhibit – that is, how different both sexes can look.

You can hardly get more dimorphic species than Tiphiidae or flower wasps. The males are winged while the females are wingless. While the pair are in copulation, the male flies the female up to flowers where she takes nectar for energy and pollen as a protein to mature her eggs. All this is well known but Jenny Thynne added a new dimension when she photographed a male tiphid feeding the female that he was in copulation with. New discovery and so exciting.

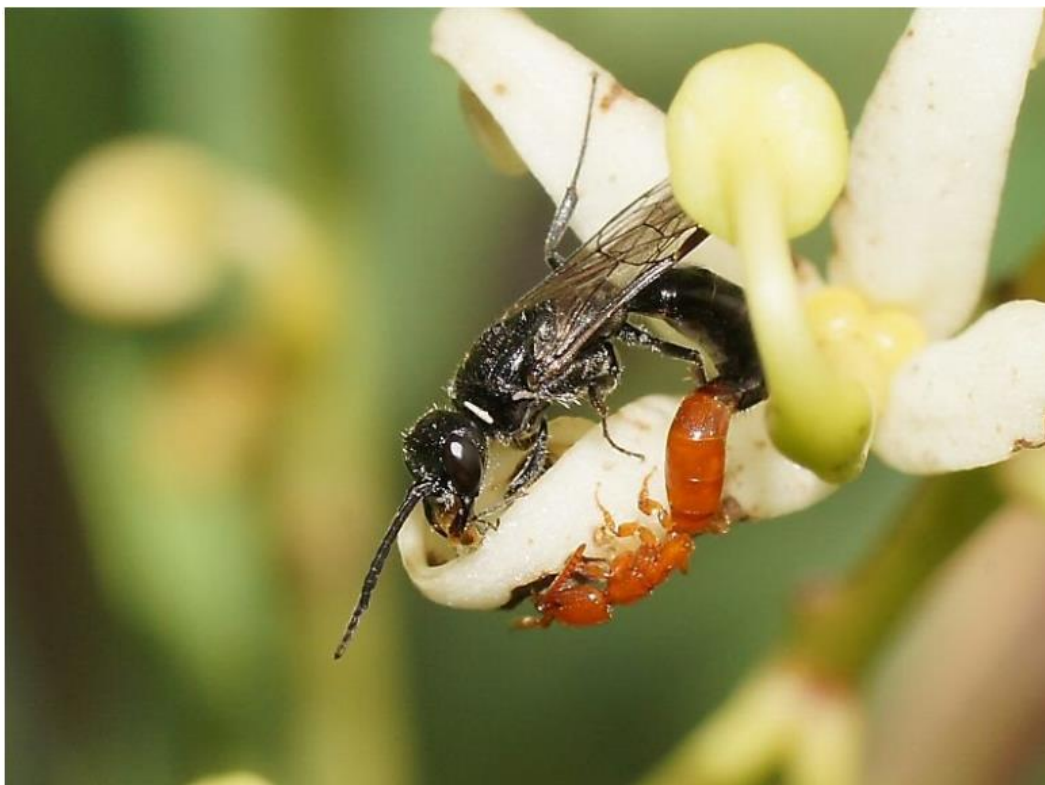


Zaspilothynnus Location: Sunnybank QLD Photo by Jenny Thynne

Another mating pair of Tiphiidae wasps – so different.



Murray-Kulkine Park, Liparoo VIC Photo by Reiner Richter



Who would match these wasps as the same species? *Eirone dispar* Newnes Plateau NSW Photo by Reiner Richter

Another example of a highly dimorphic fly species – male is small and winged while female is large and wingless. Often the male genitalia of flies is rotated to 90 degrees. Look at the angle the male is at in these images.



Boreoides subulatus Location: The Patch VIC Photo by Reiner Richter



Note the positions of the pair. Asilidae Location: Sunnybank QLD Photo by Jenny Thynne

Mecoptera or scorpions flies have an intriguing mating ritual. The male offer a meal to the female as an enticement to mate.



Female *Harpobittacus* eating a soldier beetle meal Location: Eltham VIC Linda Rogan



With these mating scorpion flies, the male is feeding the female by mouth. *Chorista australis*
Ensay North VIC Photo by Mitch Smith

Megachilidae males mount the female from above. Some male bees have enormously flanged fore basitarsi which they place over the eyes of the female. We think the mate recognition process is the pattern the female sees through their male leg flanges.



Observe the large white, hairy flanges the male has placed over the female bee's eyes (red arrowed). The middle of the flange is hairless and allows light to pass through. *Megachile* sp.

Location: Tynong North VIC Photo by Reiner Richter



Other males do not have flanged forelegs. *Megachile* sp. Briar Hill VIC Linda Rogan



Dimorphic pair of orchid swallowtails (male darker). *Papilio aegaeus* Burrowye VIC Tony Sullivan



Mating plume moths *Sphenarches anisodactylus* Location: Kuranda Photo by David Rentz



Arctiidae moths Location: Tamborine Mountain, Qld Photo by Rose Robin



Absolute beauty – mating satin moths *Pollanisia viridipulverulenta* Location: Chiltern VIC
Photo by Friends of Chiltern Mt Pilot National Park



Talk about dimorphism ! Rhinoceros male on top *Xylotrupes ulysses* Mapleton QLD D Clarke



Which is which sex? *Castiarina octomaculata* Location: Lysterfield VIC Martin Lagerwey

Next – the bugs or Hemiptera



All wings! Derbidae: *Lydda* sp. Location: Lake Argyle WA Photo by Simon Ong



No dimorphism here – which is which sex? *Commius* sp. Florina NT Photo by Simon Ong



Mating dance of lace monitors *Varanus varius* Redwood Park QLD Photo by Glenda Walter

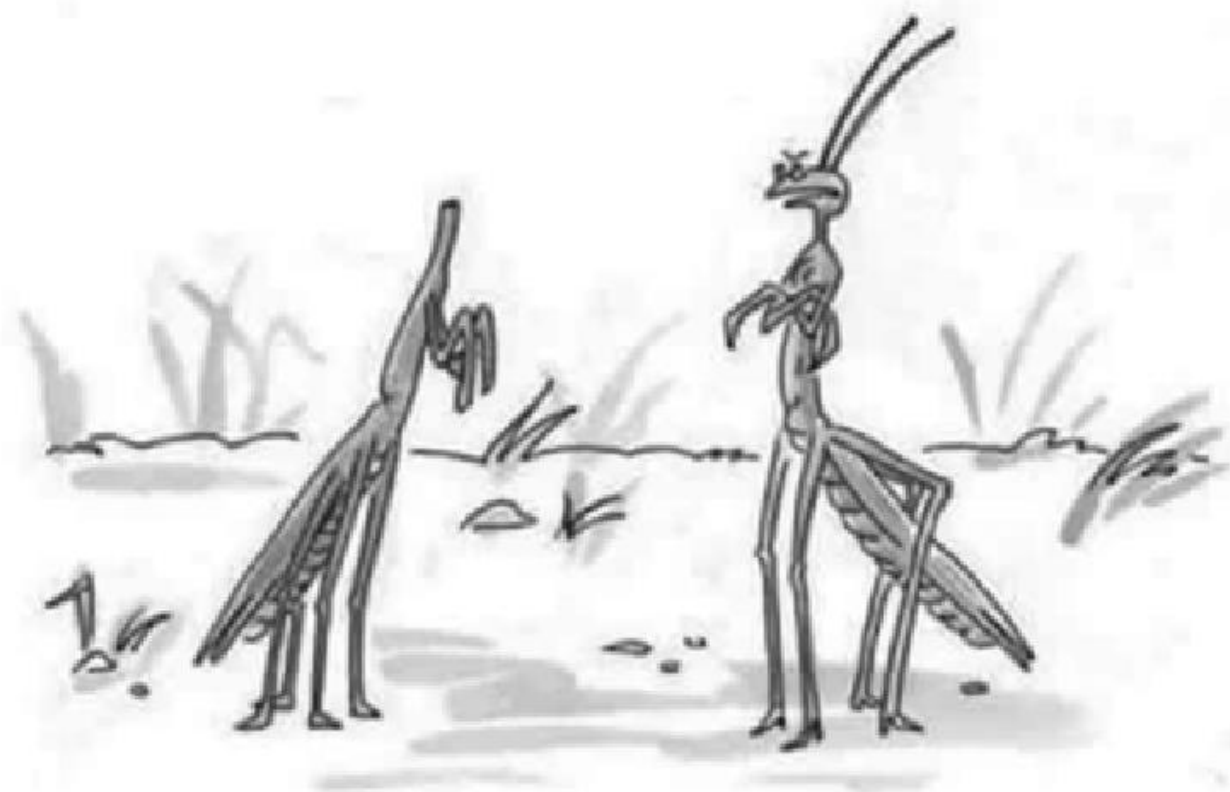


Mating Eastern Blue tongue lizards *Tiliqua scincoides* Sunnybank QLD Photo Jenny Thynne

One of the more bizarre mating rituals occurs in the praying mantis. Here the female eats the head of the male after he begins to mate. Apparently that keeps him mating for hours. Alan Henderson recently posted this image from his Kuranda insectarium.



Not long after I saw Alan's great photo this cartoon came out and I could not resist joining the two together. Enjoy.



"You slept with her, didn't you?"

And now with some more recent images and stories.



Amazing antennae on this sawfly *Styracotechys dicelysma* Tamborine Mountain QLD Photo by Rose Robin.



Amazing hawk moth larva (*Theretra celata*) Glen Eden QLD Teale Britstra



What a great photo showing a Callibracon wasp injecting her ovipositor into wood presumably to lay an egg in a moth caterpillar inside the branch. Wangi Wangi NSW By Janet Grevillea



Times must be tough when this eastern brown needs to seek water from a birdbath – Amazing photo. Location: Uleybury SA Photo by Frank Prinz

First confirmed record of the Asian Paper wasp in Melbourne !

The invasive Asian paper wasp, *Polistes chinensis antennalis*, was reported from the Sydney area in 1999 and as shown by the ALA map below, it has not spread far from Sydney.... until Reiner Richter photographed not only adult wasps but also a paper nest in November in Melbourne 2018.

Upon request from me, Reiner collected an adult and the paper nest and these specimens are now registered in the Museums Victoria collections as our first representatives of this invasive species. Yet again, citizen science leads in alerting quarantine to invasive species.





Polistes chinensis antennalis Location: Rowville VIC Photo by Reiner Richter



Museum specimens donated by Reiner – much appreciated.

Great life history photos

The fig leaf beetle has a semi-restricted distribution as seen below and as the common name suggests, eat leaves of fig trees.





Teale Britstra
macrosm.com



Teale Britstra
macrosm.com

Poneridia semipullata Location: Glen Eden QLD Photos by Teale Britstra

New state record !

Simon Ong, our wonderful citizen science contributor from Kununurra, WA, recently posted images of a praying mantid with a heavily serrated pronotum. Matthew Connors identified these images and commented on how rare this species actually is and a look on ALA shows only 4 previous records.







Archimantis monstrosa Location: Durack WA Photos by Simon Ong

A very cool beetle



Lepidopteryx mastersii Location: Cygnet, TAS Elaine M.

Martin Lagerwey continues to amass an amazing reference library of Australian Chrysomelidae



Peltoschema sp.



Paropsisterna interlita



Paropsisterna erudite



Paropsisterna Agricola



Martin titled this record "Weevil or bird poo?" The weevil was identified by CSIRO DR Rolf Oberprieler as *Aonychus hopei* and who commented: "They are usually collected on Proteaceae such as *Grevillea* and *Hakea*, although we still don't know where the larvae are. Should you ever come across these" "

Linda Rogan captured a spider mid yoga pose



Ariamnes colubrinus Location: Pantom Hill, Vic Photo by Linda Rogan

More to the image than first meets the eye



The identification of *Stephanopsis barbipes* was made by Robert Whyte. Robert commented: "It is *Stephanopsis barbipes* or a close relative, almost identical to *Sidymella lobata* except for the tufts on the first legs of the male *Stephanopsis*, in this case the left leg 1 has regenerated."

I had initially failed to notice the lack of hair on the left first leg. Lots to see in every image.

Some may remember the story of Reiner Richter rediscovering a presumed extinct ladybeetle. Briefly, this species, *Micraspis flavovittata*, was considered to be extinct. It was last seen near Kallista, NE of Melbourne, back in the 1940's and after 50 years of no sighting an animal can be considered extinct. Then in 2017, Reiner Richter found a thriving population in a swamp down SE near Portland.

Then I saw an image posted on 19 Dec 2019 which took my breath away with a posting of *Micraspis flavovittata* posted by John Eichler who said: "Members of the Field Naturalists Club of Victoria, led by Reiner Richter, located about 10 adult beetles and several larvae at a swamp between Portland and Nelson." Great to see the population continues.



Micraspis flavovittata Location: Near Portland Vic Photos by John Eichler

And finally, what's a Bugle without Mark Berkery's

Nature Place

Last year I prepped a mud brick as a nest for the Blue Banded Bees that visit the garden. This year they moved in wholesale.

And with the BBB comes the Cuckoo, amongst other opportunists.

And what a beautiful opportunist she is. I saw her stalking the mud brick and enter one of the nest holes the BBB makes, so thought I'd provide some roosting spots, to get a few shots.

It seems to be working out, and two more nests are being prepped for next year, different shapes and sizes.

These bees have their preferences, maybe I'll learn something of them.



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Merry Christmas all and every success for 2019 !!!!!!!

As always from BowerBird .. that's your lot for this month.

Haveagoodweekend all Happy photographing ...

Cheers – Ken

(If you wish to leave this email list, please contact me directly at kwalker@museum.vic.gov.au – else share with your friends)

