3 November 2017 Ken Walker (kwalker@museum.vic.gov.au) Museums Victoria. Edition 54.

Hi All – I have been busy recently getting out and extolling the benefits and achievements of citizen science and showing people how to use BowerBird. Last month, I visited two country locations and I met lots of wonderful and enthusiast people.

I first travelled to Ballarat to speak with the BEN (Ballarat Environmental Network) group. I had a very enjoyable afternoon. First up I gave a talk about citizen science and then we all did a three hour BowerBird workshop on many aspects of BowerBird usage. As there was Wi-Fi in the building, people were able to follow my instructions as we went through the workshop. It was magic.

A number of people from these two workshops have asked to receive the Bugle issues so I send them all a big welcome and to say that I am enjoying watching records come in from Ballarat and Stawell.

Stawell was the location I travelled to last week to speak with the WAMA group (Wildlife Art Museum of Australia). WAMA has a lovely block of land west of Stawell near Halls Gap that I visited. The dam was full of water and full of bird life. Lerps had decimated most of the local eucalypt leaves but they will come back. We saw kangaroos and other wildlife – very enjoyable.

WAMA are working with the Trust for Nature and Landcare organisations and have made this block of land a refuge/sanctuary for the local flora and fauna. Of course what better way to document this local flora and fauna than to place images on BowerBird. An interesting project soon to begin is the rabbit proof fence to be built on a section of this land. The WAMA group intend to document the biota pre and post fence construction. I was introduced to many interesting and passionate people some of whom have made contact with me since. I particularly enjoyed an email from “Johanna” who told me that her two young boys were inspired by my talk and have been out and about photographing lots of wildlife in their area. Hopefully, that’s the beginning of a lifelong passion in citizen science and perhaps even a future career pathway. Such feedback makes my visit all the more special and worthwhile to me.

In preparation for the WAMA workshop, I recorded five short videos about BowerBird usage such as: How to register and login; How to join projects; How to upload records; How to identify and leave comments; and finally, How to look for your records on ALA (Atlas of Living Australia). If anyone would like to view these videos, here is the URL:

http://researchdata.museum.vic.gov.au/WAMA/WAMA.html

Thanks everyone for making me feel so welcome and I wish you all a wonderful adventure documenting your finds on BowerBird.

Here are some of exciting recent images already coming in from the Stawelland Ballarat areas:

Austrpetalia auriculata Location: Ararat-Halls Gap Rd, Halls Gap Photo by Stephen Powell

Orthetrum caledonicum Location: Ararat-Halls Gap Rd, Halls Gap Photo by Stephen Powell

Litoria raniformis Location: Cardigan VIC VIC Photo by Ray Draper

Aquila audax Location: Newtown VIC Photo by Maia Draper

For this Bugle, I am going to highlight records since the last Bugle that caught my eye so it's a chronological look over the past 2 months – Enjoy.
Rose Robin continues to upload a wonderful array images from her home at Tamborine Mountain in SE Qld. Her record of the Orchard swallowtail so early in the season (6 September 201& was a treat.

Papilio aegeus Location: Tamborine Mountain QLD Photo by Rose Robin

The following image is of a mantid like lacewing belonging to the family Mantispidae. They hold their forelegs in an arched, raptorial position as is found in mantids. Most lacewing mantispids have grey or brown or yellowish markings so to find one with splashes of red is amazing and exciting.

Calomantispa sp. Location: Tamborine Mountain QLD Photo by Rose Robin

Fungus gnat fly – *Mycomya* sp. Location: Albury NSW Photo by Karen Retra

An amazing case of a bug nymph mimicking a green tree ant.

Pod sucking bug *Riptortus serripes* Location: Freshwater QLD Photo by John Eichler

Ant colonies reproduce by producing large numbers of winged reproductives that mass and wait until just after rain to fly off.

Winged ants Papyrius sp. Location: Yarralumla ACT Photo by Kai Squires

This spider is definitely not built to walk on the ground but rather is more comfortable hanging in a web upsidedown !

Whip spider, *Ariamnes colubrinus* Location: Boneo VIC Photo by Reiner Richter

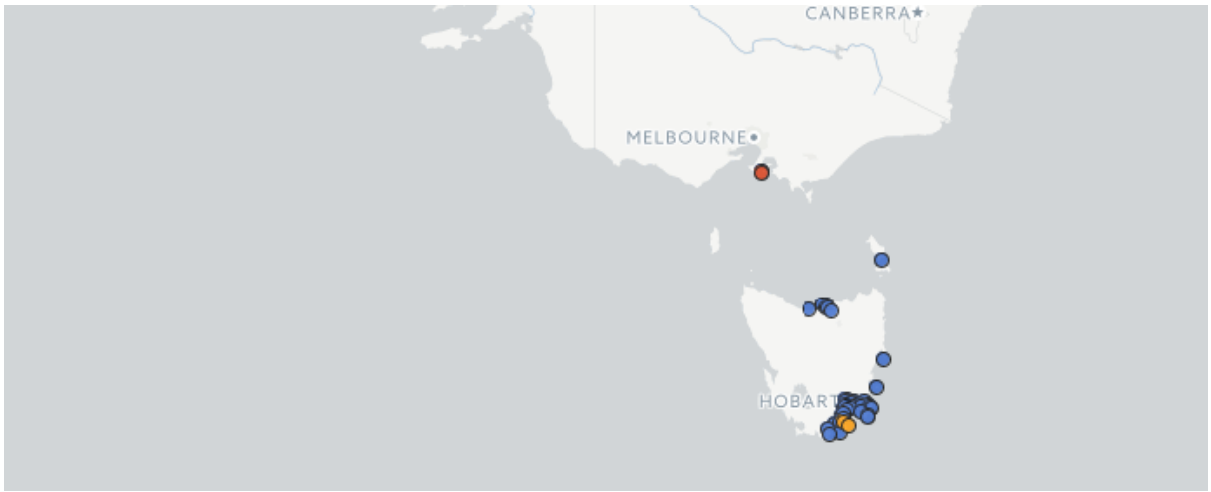
This ptiliid beetle is less than 1mm in body length and lives inside ant nests.

Rodwayia sp. Location: Blackburn VIC Photo by Nick Porch

This is a valuable biosecurity record. This species of crab has been introduced from NZ and while common in Tasmania, this was the first mainland Australia record. Very cool.

Porcelain crab *Petrolisthes elongatus* Location: Summerlands VIC Photo by John Eichler

Map of species from ALA



John also posted some magnificant images of marine fiddler crab images .....

Orange-clawed Fiddler Crab Uca coarctata Location: Aeroglen QLD Photo by John Eichler

Fiddler crab *Uca flammula* Location: Broome WA Photo by John Eichler

And, there were some remarkable Robber Fly images ...

Robber fly *Brachyrhopala* Location: Mount Stirling WA Photos by Jean & Fred Hort

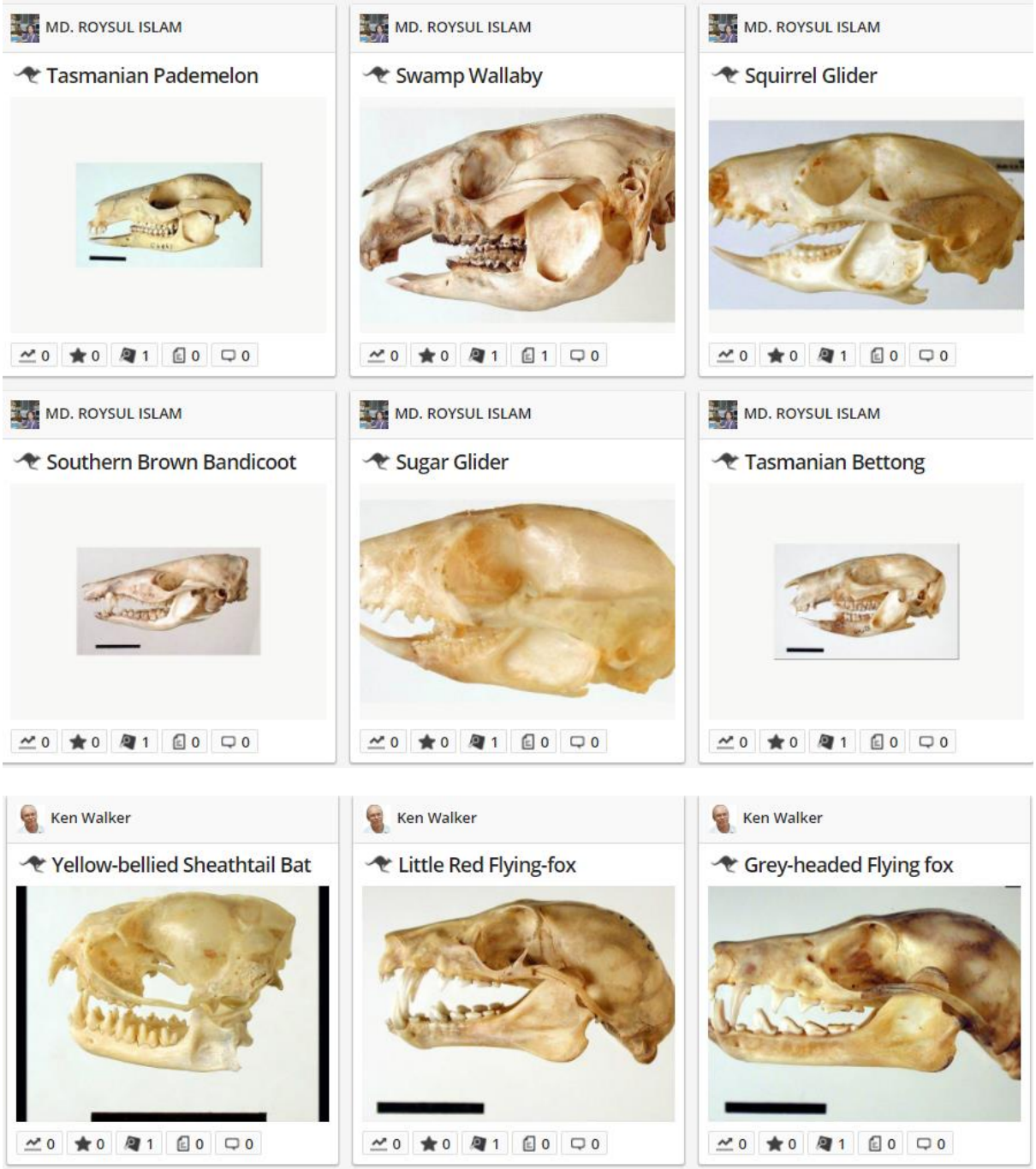
This is a possible undescribed species of Daptolestes robberfly. Location: Maramingo Creek VIC Photo by Martin Lagerwey

These spiders have a number of different common names which include: Net casting spider, Gladiator spider and Ogre face spider. The genus name, *Deinopsis*, is derived from the Greek words *deinos* "fearful" and *opis* "appearance. They get the name “Gladiator” spider as one form of gladiator used to throw a chain-mail net over their opponent. These spiders build a web which is held between their front four legs and they sit and wait for prey to walk below them. When in reach, the spider expands the web and drops it over the prey. The web retracts, entangling the prey and the spider then draws up the web and prey. Beautiful spiders.

Deinopis sp. Location: Vermont VIC Photo by John White

More often than not, mammal bones are found in the bush than the live animal – but it is more difficult to identify the mammal from just the bones?

BowerBird has an image library for all Victorian mammal skulls showing dorsal, lateral and ventral views for all species.



So it was with interest that I saw Liz O’Donnell posted images of a skull with close ups of the teeth. Fortunately, the museum has an excellent mammologist on staff who quickly identified the images as those of a rabbit. The value of the images was to demonstrate the ability to identify mammals from their skeletal remains.

European rabbit *Oryctolagus cuniculus* Location: Wamboin NSW Photos by Liz O’Donnell

Apparently, the final image showing the teeth was most useful.

The museum’s mammal curator, Dr Kevin Rowe, wrote this text: “Notice the two pairs of overlapping upper incisors, which define lagomorphs. Marsupials would have more upper incisors (3 pairs in most macropods) and would not be overlapping."

If you do see bones in the bush, please do record them and let’s see if we can identify the species from just the bones.

Happy hunting !

I was fascinated by a series of images posted by Kerry Stuart showing chimney like constructions with an ant at the top. Had the ant actually made this tower or was the ant just an accidental visitor when Kerry took her photos? Well, it turned out that the ant had indeed made these fibre based towers.

Western flumed sugar ant *Camponotus molossus* Location: Gooseberry Hill WA Photos by Kerry Stuart

One of the aspects of BowerBird that continues to astound and encourage me is the depth of identification knowledge within the BowerBird community.

Two days after Kerry posted her images, Kate Sandiford, who has identified many BowerBird record, provided the species level identification. I do not know the WA ant fauna very well so I could only suggest the ant was a *Camponotus* but I did not know about the biology of this ant.

I gave a talk recently where I commented about the added value to live citizen science images. In a museum context, this ant would be on a pin or card but we would not store the ant built chimney. The live photos link the taxonomy to the behaviour of the animal – from these, I have learnt so much. Thanks!

Ken Harris is a regular contributor to BowerBird and other natural history websites. He is particularly interested in lacewings and through hard work and many hours has become an authority in this group. I was interested in the text Ken wrote about his encounter with a species of “moth lacewings” that initially look somewhat cockroach like.

Moth lacewings Megalithone tillyardi Location: Suggan Buggan VIC Photos by Ken Harris

Ken wrote about this encounter: “I encountered a huge swarm of these lacewings in November 2013.

As part of the Alpine Bioscan, we were light-trapping all night in the Willis Camp Ground beside the Snowy River close to the N.S.W. border. Before midnight one *M. tillyardi*, came to the sheet and was photographed and collected.

We slept until 3.00 am and then found two more *M. tillyardi* on the sheet.

Another sleep until 5.30 am saw a big change. The light sheet was covered in *M. tillyardi*! There were 50+ on the front of the sheet, 25+ on the back and a further 25+ on the ground! On the front of the sheet there were not only single lacewings, but a large number of mating pairs (see picture) and in each case, the female was dragging the male around the sheet, bulldozing

moths and other insects off the sheet. That wasn't the end of the story.

Wandering around for a little bird-watching after dawn, we saw more lacewings all over the place. Driving back to Native Dog Flat, we stopped to look at a distant view of Mt. Kosciusko, and at least three lacewings fell out of our clothing! We continued to find these lacewings in our clothing and gear for the next two days, around 20 or them!

This is the biggest mass gathering of lacewings of any kind that I have encountered and there were certainly well in excess of 100 of them."

Ken's record contains not only valuable, multiple images of these lacewings but also a firsthand account of the preferred flight time of these lacewings.

I must admit that I do sometimes feel a bit guilty at the end of the day in the field. As night falls, the night light-sheet moth and other night flying insect specialist head off into the dark.

For me, the night is time to relax and pin out my catch from that day. But for the light-sheeter, their day/night has just begun .... but they seem a cheery lot as off they head for an all-night event.

I must admit that I have spent many hours sitting and staring at a light-sheet. It really is very exciting as you have no idea what will come to the sheet until it suddenly appears on the sheet.

Although, sometime not every insect headed for the light-sheet actually makes it to the sheet. Many a night my light-sheet has provided a wonderful meal for the local bats that you see swooping down and catching insects mid-air as they make their way to the light-sheet. But – I don't mind sharing my catch.

This record by Janet Grevillea reminded me of the expression: “Life’s tough”. The images are of a noisy miner bird nest but as usual, it was the appended notes that caught my eye.

Manorina melanocephala Location: Lake Macquarie NSW Photos Janet Grevillea

Janet wrote: “The Noisy Miners at our place have just built their nest about six metres away from the Butcher Bird Nest, at about the same height above the ground.

Given that the Ravens are also nesting, and will kill the young of smaller birds for food if they get the chance, I am interested in how well the Miner nest blends into the small Spotted Gum.

There are up to eleven Miners attending this nest.”

Bubbling bee

I do enjoy seeing images of bees bubbling. Remember, they bubble to reduce the water content of the nectar down to 30% water which converts the flower nectar into a sugar-rich, thick syrup-like fluid which they use to power their flight muscles.

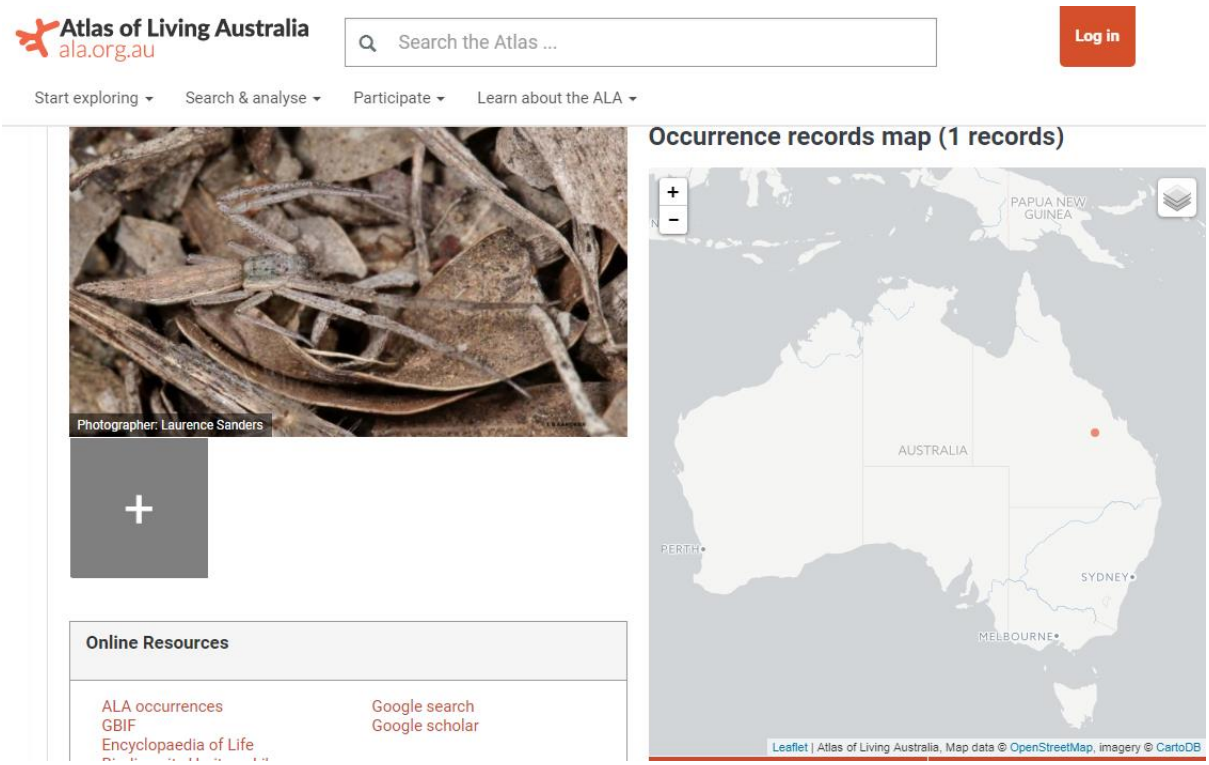
Bubbling native bee *Lasioglossum Chilalictus chapmani* Location: Kurri Kurri NSW Photo by Irene Richardson

Another magnificent Peacock spider from Queensland. I cannot get enough of these diverse and stunning, small spiders.

Maratus nigromaculatus Location: Lilyvale QLD Photos by Laurence Sanders

Laurence continues to create “firsts” on ALA from his home base in Emerald, Queensland. Below is the first record and first image of this rare Australian spider.

Congratulations Laurence. Many other BowerBird records have also recorded “firsts” on ALA



The Garden soldier fly can often be found in the backyard compost bin where its larvae do a great job of breaking down rotting vegetable matter. How do the larvae get there? Jeannie caught a fly laying eggs through her compost bin lid! Brilliant !

Garden soldier fly *Exaireta spinigera* Location: Wollongong NSW Photos by Jeannie

Eye to eye with a local skink

Rose uploaded a set of wonderful images of a skink patrolling her garden. The image show the body and then a close up of the head – fascinating and thanks Rose.

Major skink *Bellatorias frerei* Location: Tamborine Mountain QLD Photos by Rose Robin

What a “lovely” common name for a beautiful creature!

Ass's Ear Abalone

Haliotis asinine Location: Mowbray QLD Photo by John Eichler

The photos tell so much more about the insect.

The next set of photos show a parasitic wasp laying eggs through a case moth shelter presumably into the caterpillar inside. Getting the right parasitic with the right host adds so much more to the knowledge and behaviour of both species.

Ichneumon wasp *Sericopimpla* sp. Location: Beaumaris VIC Photos by John Eichler

Here is another “behaviour” image which tells a lot about something we may not what to know a lot about .....

The record is entitled: “In One End ...”

Weevil beetle larva on eucalyptus leaf Gonipterus Location: Baw Baw VIC Photo by Reiner Richter

Below is a record that has “the lot”. To begin with there are no records or images of this fly species on ALA. But the images show both sexes (and mating) as well as egg laying and what plant the flies are feeding on. Just amazing !

***Diochlistus mitis* Gerstaecker, 1868**

species Accepted Name authority: AFD

Overview Gallery Names Classification Records Literature Sequences Data Partners

Occurrence records map (0 records)

Mydid flies *Diochlistus mitis* Location: Cypress Rd, Pinjar WA Photos by Jean & Fred Hort

The record's comments read: "Great to find these *Diochlistus mitis*, handsome Mydid flower flies we had not seen before. These were flying low to the ground among low open shrubs on white sandy soil in *Banksia menziesii* open woodland. This environment had been burned about two years ago and the resulting shrub regrowth was coloured with flowers that provided food for the flies. On a 25 degree day the flies were very active. At times they were seen resting momentarily on the warm sand. These can be identified by the distinctive wing venation and the colourful yellow markings on the abdomens. Length around 20 mm. As far as we know these flies are rarely seen. Thanks to Xuankun Li and Chris Cohen for the identification. "

Honestly, some of the BowerBird images should be in a frame on the wall of an art gallery.

Another valuable record when noting the first appearance of a species for the season. This is a cuckoo bee that parasitises Megachile leaf cutter bees. First arrives the host (leaf cutter bees) then followed by the parasite (cuckoo bee).

Coelioxys Coelioxys albolineata Location: Sunnybank QLD Photo by Jenny Thynne

The annual Bird Count has just been completed and there were some interesting observations. The scarlet honeyeater is a rare visitor to Victoria and when it does visit it is usually confined to the far east of the state. However, this year the annual bird

count recorded it from central Victoria, Melbourne and Geelong. It is thought the long drought in Queensland has forced the birds to seek new areas further south. I checked BowerBird and sure enough the scarlet honeyeater has made an appearance (17 October 2017) from the Gippsland region.

Scarlet honeyeater *Myzomela sanguinolenta* Location: Jeeralang Junction VIC Photo by Matt Campbell.

Matt commented: “Not the best shots but just so happy to finally be able to record these. Only seen twice on the property before, both times were about 6 years ago and within a week of each other. This year there's been quite a number of them hanging around for the past week although they tend to be staying up in the canopy.”

I spoke to the museum’s ornithologist who said these birds are so hard to photograph as the stay at the tops of the trees.

Have you ever seen a fly with a “big nose”?

Tachinid fly Tachinidae Location: Willung VIC Photo by Reiner Richter

How does a fly break out of its pupal case? It doesn’t have any teeth or claws to break open the pupal case so it “pops” the lid of the pupal case. But how? Just before the fly emerges from the pupal case, there is a “U shaped crack” called a ptilinum fissure around the base of the antennae. This “crack” allows the fly to push blood (called haemolymph) to the front of the head which caused a large balloon shaped bubble to protrude out of the front of the head (see image above). The protruded balloon “pops” the lid of the pupal case through which the adult fly escapes. It takes a few hours for the blood to seep back into the body and the “crack” then seals and cannot be used again.

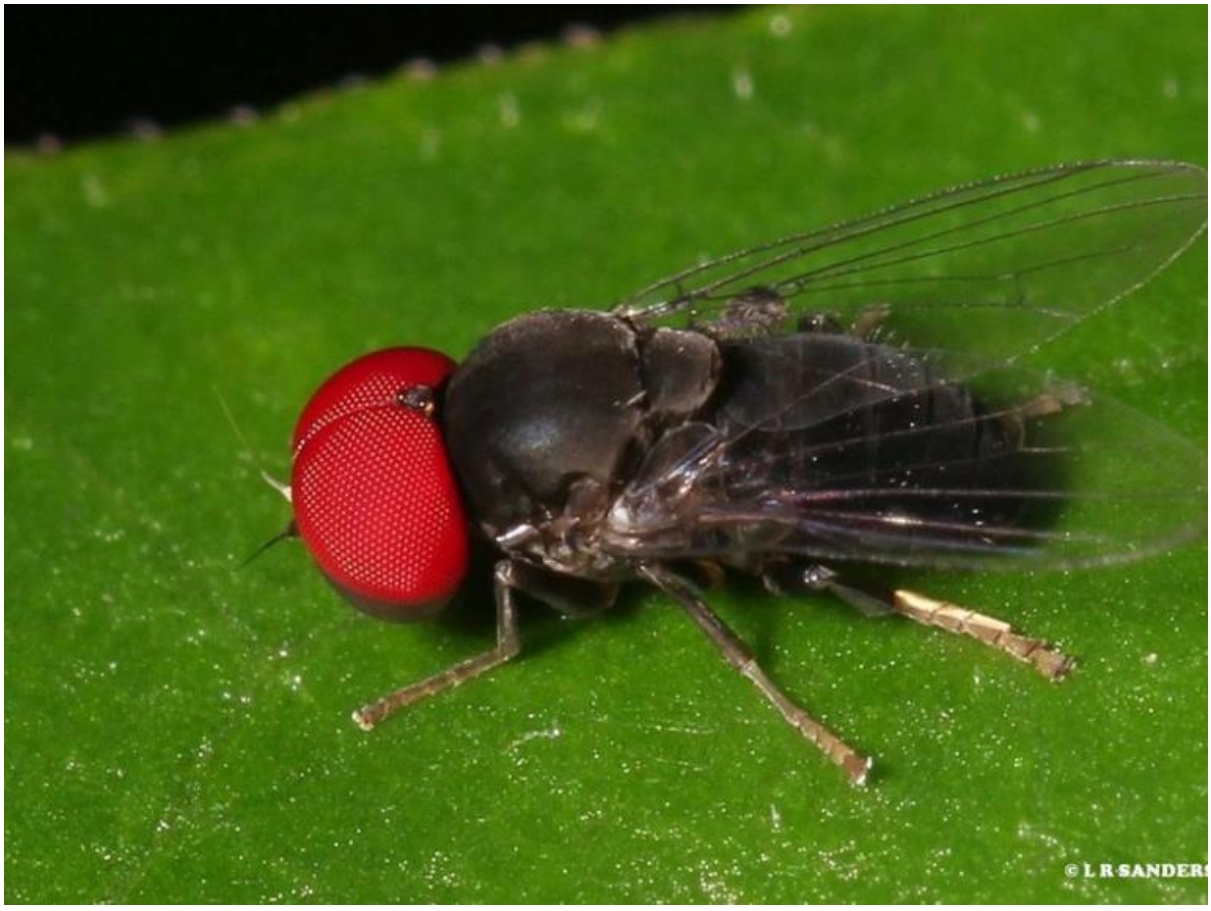
Wonderful behaviour image by Reiner – you had to be there at just the right time to get that image but it explains so much.

The fly with the Red head --- Why???

I loved this photo by Laurence. What an amazing set of red eyes that occupy almost the entire head of this fly.

I sent the image to a fly expert at the Australian museum who forwarded the images to an overseas expert and we were able to establish that it is the male of the genus listed below.

Thanks for sharing more fascinating insects from Emerald, Qld.



Platypezidae Lindneromyia sp. Location: Emerald, Qld. Photo by Laurence Sander.

Comments from the overseas expert were: “ "I can only agree that it is a male of the genus Lindneromyia. It could be L. fergusoni, which is the commonest Australian species, or L. denticulata.”

What amazing camouflage on this crab spider.

Stephanopis ornata Location: Tamborine Mountain QLD Photo by Rose Robin

I was stunned when I saw Rose's image of this crab spider. The colour and shape of the legs match so well lichen. I have seen many crab spiders in flowers but this species must sit on rocks and walls amongst lichens to catch its prey.

I had to call on Robert Whyte, the author of the lasts Australian Spider book, to provide the identification.

I loved the colours and patterning of this robberfly posted by Martin. I went to the experts to get name.

Daptolestes limbipennis Location: Maramingo Creek VIC Photo by Martin Lagerwey

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

Nature Place

Jacaranda & Co

The rain came and soaked the ground, the garden sang out green, and the little creatures came out to play – what they do.

Though there was barely a leaf on the jacaranda tree after a long dry winter it was only a week or so after the rain started it was covered in flowers, famously.

One rainy night I made the most of some christmas beetles knocked to the ground by the force of wind and falling water, some just couldn't hold on.

Colour and contrast, some of the little beauties in a small patch of nature in the garden.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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)