



01 October 2015 Ken Walker (kwalker@museum.vic.gov.au) Museum Victoria. Edition 28.

Hi All – The Bugle is coming out a day earlier than its usual Friday afternoon due to a public holiday here in Victoria. What significant event could this holiday be for??? – the AFL Grand Final on this Saturday. In the media, this holiday has been roasted and panned by all and sundry. The usual AFL event on the eve of the grand final is to have a parade of players down the main street of Melbourne at lunchtime Friday. City workers come out in their droves for an hour or so and return to work after the event is over. However, this Friday being a public holiday, there will be significantly fewer workers in the city so the AFL have had to change the location of their grand parade and they are hoping people will find their new location let alone come out to attend it. Apparently, it was a pre-election promise by the then opposition and we all know how important it is to keep these pre-election promises. If it's a sunny day on Friday, I will take my camera to the local park and see what I can find.

And, you just never know what you will find down at your local park. Adam Edmonds ventured to a park in Grovedale Geelong and photographed what he thought was a run of the mill Australian praying mantis. Little did he know the commotion his photographs would generate? I sent Adam's photographs to Australia's mantis expert, Graham Milledge at the Australian Museum. Graham's reply certainly caught my attention. His

reply read: “It looks like *Miomantis caffra*, a south African mantis species which has been resident in New Zealand for some time but not recorded from Oz yet.” YIKES – Was this the first record of an invasive exotic species in Australia? For many years, I worked with the Australian Quarantine service and I know the entomologists in this organisation well. I forwarded the images to the senior quarantine entomologist at the Tullamarine Melbourne airport, Adam Broadley. Adam was recently part of a large quarantine survey done on Norfolk Island. He commented that on this Norfolk Island survey, he had collected a male of this species and it looked very similar. So, I further sent on Adam’s mantis images to another mantis expert Maik Fiedel who replied: “Definitely a *Miomantis caffra* adult female.” Yep – BowerBird has recorded a new exotic invasive to Australia.

In the meantime, Adam Broadley from quarantine had alerted all AQIS entomologists in eastern Australia as well as head office in Canberra. I had also alerted the Victorian Chief Plant Health Officer as protocols for a suspected invasive requires.

The old “Bigger than Ben Hur” quote came to mind.

We wondered how did this species arrive in Australia? Most likely on a container ship transported to Australia through the port of Melbourne. Did it come from New Zealand or South Africa? Did it come in as an adult or as an egg case, an ootheca, which can contain up to 100+ mantis eggs. The images were of an adult female. Mantis are not like their close relatives the stick insects and fortunately are not breed parthenogenetically, meaning a female mantis does require to mate with a male to produce viable offspring.

So, is there a male of this species that can mate with the photographed specimen to then establish a viable population in

Geelong? Is Geelong the only place where this invasive species occurs? So many questions and at present so few answers. Here are Adam's biosecurity breach images!



Photos by Adam Edmonds

Quarantine staff and Adam Edmonds will now scour the area around where Adam's image were taken hoping to secure a specimen for a confirmed identification.

Well, I had always known that BowerBird could be a real contributor to Australian Biosecurity. Many will have heard of the Red Imported Fire Ant. It's an exotic ant from Texas, USA. The story goes that all within one week, three members of the public presented ants for identification to three government based entomologists – one to the Queensland Museum, one to the Department of Primary Industries and another to a quarantine entomologist. One member of the public reported the ant was building mounds in his yard which he had not seen before. Another reported the sting of the ant was much worse than any other ant he had felt. And the third said "It just looks different to all of the other ants." Apparently, each of the three entomologist examined their public supplied ants and the following week, they all contacted each other – all with the same question: "I think I have identified an ant as *Solenopsis invita* - the exotic fire ant."



The rest is history and over \$300 million has now been spent trying to eradicate this pest ant from SE Queensland. They say it usually takes about 5 years for an exotic species to be reported to authorities by which time it is almost impossible to eradicate the species only to manage it. That seems to be the case of the Red Imported Fire Ant in SE Qld. They have reduced its numbers substantially, but new outbreaks continue to be found. The Fire Ant's name and reputation comes from the effects of the ant's venom – extremely painful often resulting in raised welts where stung. A few years later, another exotic ant invaded the Cairns region – *Wasmannia aureopunctata*. Overseas, it is called the “little fire ant” but to avoid confusion with the fire ant in SE Qld, it was decided to call it the “Electric ant”. Its sting too pack a real punch. Again, it was a member of the public who took specimens into the Cairns Department of Primary Industries.

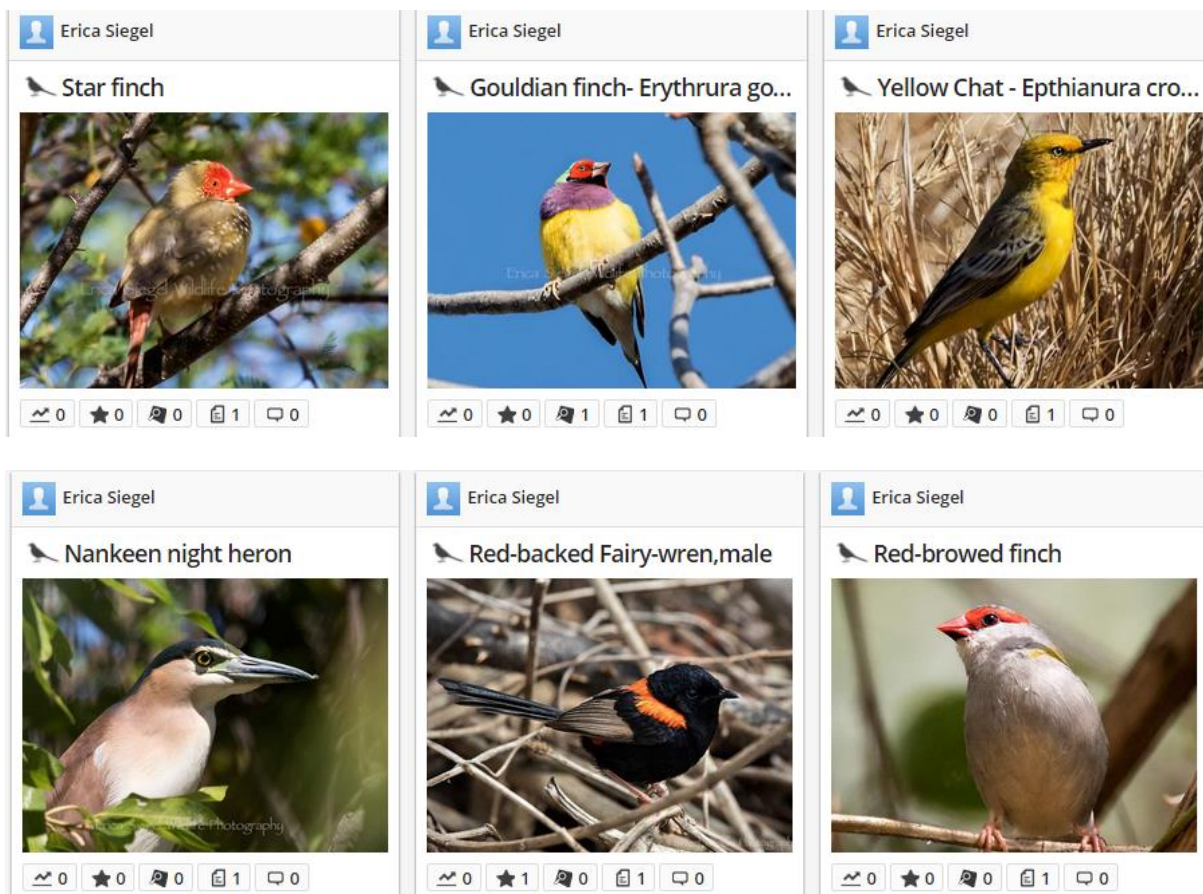


Photo by Ken Walker

Erica Siegel, one of BowerBird's excellent bird photographers recently visited the remotes areas of the Kimberley in NW WA.



I followed Erica's travels and photographs on FaceBook and now Erica is sharing many of her breath-taking images on BowerBird.



Erica's Gouldian finch images are indeed superb:



Photos by Erica Seigel

And what about Erica's striking image of male Red-backed Fairywren, *Malurus melanocephalus*.



Or this Nankeen night heron, *Nycticorax caledonicus*



Photos by Erica Seigel

Erica is also a keen bee photographer and recently captured some amazing bee images in her Brisbane garden. These halictine bees: *Homalictus brisbanensis*



And, *Lasioglossum (Chilalictus) calophyllae*



Photos by Erica Seigel

And what about this magnificent *Mopsus mormon* jumping spider taking lunch break! Thanks Erica for sharing with us.



Photos by Erica Seigel

A blast from the past

In 1994 and 1995, Museum Victoria re-enacted the Horn Expedition of 1894 and 1895. Horn was a wealthy pastoralist from SA and he funded Museum Victoria (then known as National Museum of Victoria) to conduct a 2 year survey of what later become the National Parks of Uluru, Watarrka, Finke Gorge and Ormiston Gorge. What a wonderful trip. So, I have pulled out a few photos to upload to BowerBird. Here is a plume moth, *Megalorhipida leucodactyla*, taken in March 1995 at Uluru, NT. The photo was taken by John Broomfield, my wife Heather scanned the slide, Donald Hobern (the director of GBIF in Copenhagen) did the identification and I uploaded the record – Phew .. a real team effort from around the globe!



The deathly white shroud

Braconid wasps are well known as parasitoids of moth and butterfly larvae. The adult female wasp lays eggs under the skin of the caterpillar which hatch and the larvae literally eat the caterpillar inside out. When the wasp larvae have finished eating, they break out of the caterpillar to spin white cocoons. These white cocoons have been termed the “deathly white shroud”. These images show well this unique occurrence.



Photos by Kristi Ellingsen

What a wonderful common name

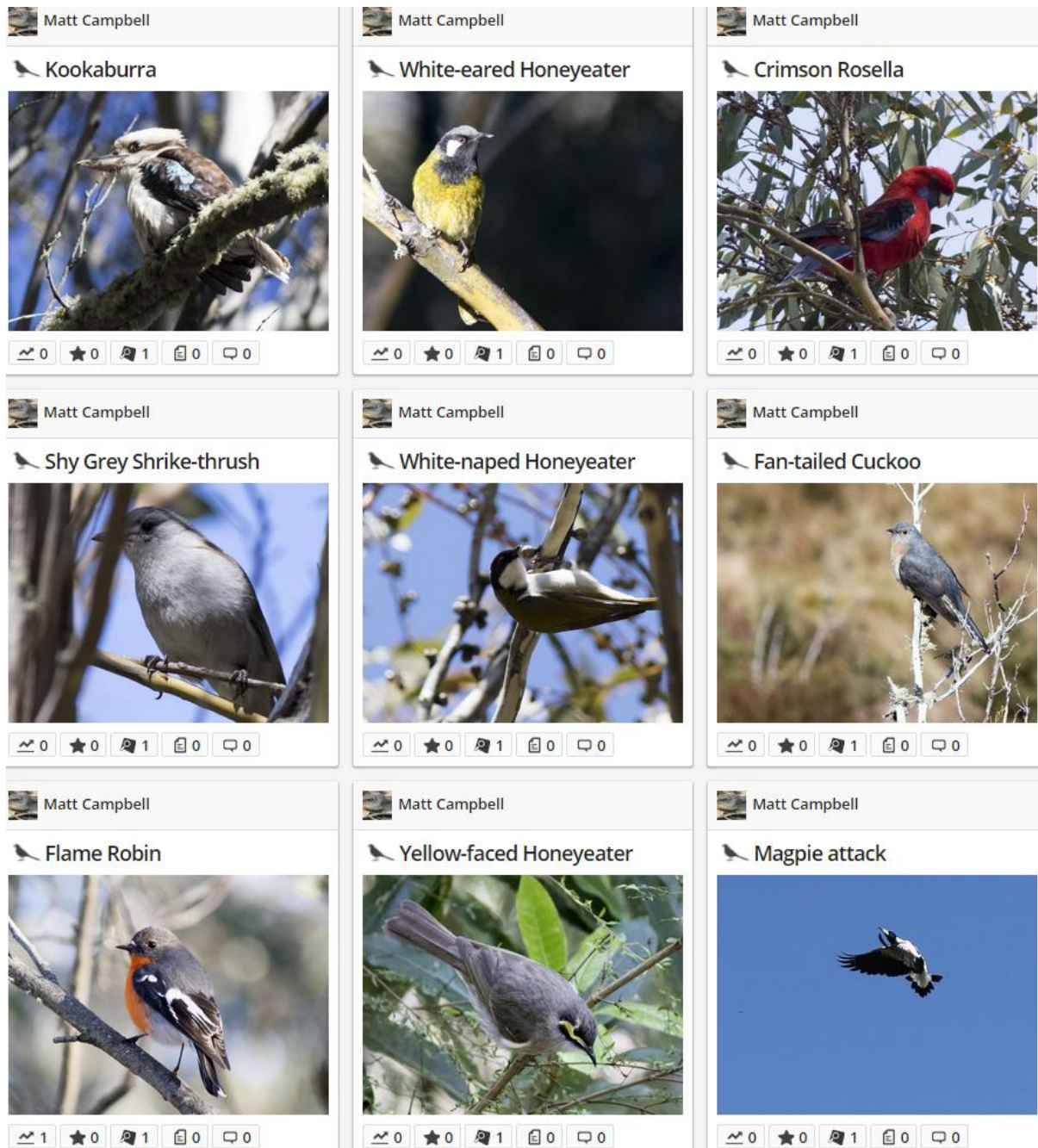
What a wonderful common name for this brilliantly coloured dragonfly – the Red Baron: Libellulidae: *Urothemis aliena*



Location: Kakadu Photos by Harvey Perkins

Camera pointing up rather than down

Matt Campbell, who provided us with a wide array of wonderful fungal images during the winter months, has now pointed his camera upwards to capture some of his local bird fauna. And what a range of species he has captured and shared with us.



Have you ever wondered why beetles are the most successful group of animals on our planet?

Remember the statistics: One in every 5 animals in the world is a beetle. There are over 550,000 described species of beetle while there are only about 260,000 described species of flowering plants in the world. That classic saying: “God had an inordinate fondness for beetles.” Well, we think the simply answer is the beetle’s hard wing covers – their elytra. In most species, the elytra covers the entire abdomen. The beetles external armour provide a wonderful defence against predation and parasitism. These covers also protect the beetle’s soft tissues meaning the beetle can go almost anywhere and not get harmed. When nature finds it has developed a successful survival unit – it multiplies it at a great rate.



Martin Lagerwey, uploaded these images of the same beetle with its elytra at rest over the body and then in preparation for flight his second image shows how the elytra are moved forward and angled outwards and held fixed. The membraneous wings, which at rest at folded beneath the elytra (the first set of wings), then unfold to the full extension which enables flight. Note how in this flight position, the soft abdomen is now fully exposed and is vulnerable to predation and parasitism. Most beetle flights are short in nature. Except beetles like labybeetles (Coccinellidae) do sometimes go on migration flights – often out off Sydney harbour and landing in the Pacific Ocean. Ships at sea off Sydney have reported getting covered with migrating labybeetles.



Peltoschema hamadryas Location: Dandenong North VIC

Photos by Martin Lagerwey.

Mystery eggs [solved]

I enjoy watching BowerBird records “evolve”. No better example than this week’s “Mystery eggs” record. On 27 September 2015, Tony D. from Tasmania posted this image with this comment: “Does anyone recognise these distinctive eggs? Each egg around 2.5mm. Found under bark.”



Location: Franklin TAS. Photo by Tony D.

That same day, Martin Lagerwey posted this comment: “This is a guess. I have once found these eggs and larvae under bark. <http://www.bowerbird.org.au/observations/34926> I have previously found *Paropsisterna intacta*.’

A day or so later, Tony D. added a series images showing what had hatched from the eggs – beetle larvae and lots of them!



Location: Franklin TAS. Photos by Tony D



Location: Franklin TAS. Photos by Tony D

These new images gave Martin some additional information and he posted: “I am surprised to see them so setose. Other *paropsisterna* oviposit under bark. My next guess is the allied *morio*. *Lignea* is ovoviviparous. They don't look like *Trachymela*. I will ask David de Little”. Finally, on 30 September 2015, having consulted David, the mystery was solved and a species level identification made:



Martin Lagerwey
30 September 2015



Paropsisterna morio
(species)

Taxonomy: Animalia: Arthropoda: Insecta: Coleoptera: Chrysomelidae: Paropsisterna: morio
Common Names: Beetles, Chrysomelids, leaf beetles



Martin Lagerwey says
Confirmation by david deLittle. Thank you David.

It's good to get follow up information!

Jodi Jackson posted today this image of a Female Golden Whistler from Craigieburn VIC



Reassuringly, Jodi posted:

“Fear not - after a brief encounter with my workshop window, this lady took rest under my watchful eye and has continued on without issue (:->!”

Good news as she looks a bit upset.

Watch out for spitfires! They are about.

Reiner Richter posted this lovely image of one of our local spitfires. Remember, spitfires are wasp larvae that eat eucalypt leaves. They get their name “spitfire” from their habit of producing a yellow, gooey presumably distasteful substance from their mouth when disturbed. Reiner took this image on 18 September 2015.

There are two common species in Victoria – *Perga dorsalis* and *Perga affinis*. The larvae stages of these species are difficult to distinguish which is why I identified this image to genus only.

The larvae of these species have a unique habit of thumping their tails on the branch which causes all larvae to band together. This is most likely a protective habit as lots of larvae with lots of distasteful substance is a deterrent to predators.



Location: Mokepilly VIC Photo by Reiner Richter

What a lovely coloured spider!

This spider may even cure some arachnophobes of their fear of spiders. It's a small orb weaving spider with the impressive name of *Araneus talipedatus*. This species appears to be found mainly in southern NSW and Victoria:



Location: Stawell, Vic. Photo by Reiner Richter.

Speaking of spiders, Kerry photographed a peacock spider!

From Armadale WA south of Perth, Kerry spotted one of the highly colourful male peacock spiders. This one is *Maratus pavonis*. Look at the colours on the abdomen. These males do the most exquisite and elaborate dances to attract the female. And, the female just sits there like someone at the opera taking it all in from up in the stalls. The quality of his dance determines whether or not the female allows mating. Notice the “white socks” at the end of his legs.





And, here is the female of this species.



Photos by Kerry Stuart

Adult ladybeetle emerging from larva

Dacre, from Sydney, captured the moment of an adult ladybeetle emerging from a larva. Brilliant!



Location: Centennial Park, Sydney, NSW Photos by Dacre England

I love the intricate detail of the micro-world

Look at the detailed colouration of this tiny spittlebug hemipteran.

I always often wonder why things so small are be so complex.



Location: Adelaide, SA. Photo by Richard Flesfadar

Mark Berkery's poetry and images

Walking the garden at night with a torch, to see what shows, here and there a little reflective colour glows.

Holding on upside down, a precarious perch, for you or for me, nowhere to go but for certain, of thought it is free.

And after the flash fired and lit up the night, again and again, I went to bed, everything to me was all right.

When from my darkened sleep I went, there she still was, as the sun rose, the night rent, holding a silent pose.

The colour did burst anew, yellow rose, or sun, who knows, hit the flash again for a few.

Then, as the work done was my best, I thought I would give it a rest.





Finally, someone's weekend does not look good...

This afternoon I received a phone call and email with images from a Seizures Officer in the Wildlife Trade Compliance, CITES Enforcement Authority of Australia in the Department of the Environment, Canberra. Somewhere in Australia, they had intercepted a spider sent through the post from overseas and they needed an identification. That's their first problem, you cannot send live material via the post. Their second problem is a bigger one in that the live spider is the Mexican Red-knee tarantula, *Brachypelma smithi*, which is a CITES (The Convention on International Trade in Endangered Species of Wild Fauna and Flora) listed species – that's like trading in ivory! Heavy fines will be issued to someone for this breach. Let's see if it makes the news somewhere in OZ!



Now – I have a lot of fun writing the Bugle each week and I would like to share that fun. If anyone has a BowerBird related story they would like to tell, please send me your story and I will include it in the next Bugle.

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

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)