



QNC NEWS

Newsletter of The
QUEENSLAND NATURALISTS' CLUB INC.

No. 356 May-June 2021

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www.qnc.org.au

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PROGRAMME MAY/JUNE 2021

General Meetings: Please register at meetings@qnc.org.au or phone Mike on 0434 148 170

May 17	Speakers – Narelle Power and Damien White Topic – Dragonflies and Damselflies of the Gold Coast
June 21	Speaker – Paul Campbell Topic – Do Bilbies have a future in Queensland?
July 19	Ben Diggles will speak on Pumicestone Passage and what can be done to restore it as a nature resource

Excursions: Please register at excursion@qnc.org.au or phone Barney on 07 3720 9414

May 1-3	Minto Crags, Croftby, Scenic Rim
May 14-16	Cooloola BioBlitz
May 23	Upper Christmas Creek
June 27	Mt Mellum Nature Refuge

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The Queensland Naturalist is published twice per year, send articles to the Editor:
Dr Peter Woodall at journal@qnc.org.au

If you receive a paper copy of the newsletter, switch to receive the coloured email edition by contacting Mike (treasurer@qnc.org.au) to update your details.

COUNCIL NEWS

General Information

Items for the News

We would love you to share your experiences in, or observations of, the natural world through the newsletter. These may be current or something you've been meaning to share for a while.

Please send your written piece with photos and photo captions to news@qnc.org.au.

Naturalists' Clubs' Newsletters

Several naturalists' clubs are sharing newsletters to encourage continued interest and knowledge sharing while social distancing is in place. These can be found at the following links:

<https://qnc.org.au/Publications.htm> and <https://mysd.com.au/fieldnats/nats-magazines-2/>

Facebook

Follow our Facebook page for tidbits about the natural world, to find out what we've been up to and for information on upcoming events. Share our page with your friends and families and contact Leith (librarian@qnc.org.au) if you have information we could post. You do not have to be a member of Facebook to see what we publish, and you don't have to divulge any private information.

Library Catalogue

The library catalogue can be found on the QNC website at <http://www.qnc.org.au/Library/QNCLibraryCatalogue.pdf>

Subscription Reminder

Options for payment are shown on the back page of the QNC News. If you are not sure about the currency of your subscription, you can check with the Treasurer.

Latest on COVID-19

Please see the website below for the latest information (accessed 1 May 2021)

[Roadmap to easing restrictions](#)

COVID guidelines for meetings

- ❖ Please register for all meetings by email to meetings@qnc.org.au or phone Mike on 0434 148 170
- ❖ COVID-19 social distancing, hygiene and other requirements will be implemented.
- ❖ Also, NO SUPPER will be held, and no books or library items will be on display.

COVID guidelines for excursions

- ❖ Please register for all excursions by email to excursion@qnc.org.au or phone Barney on 07 3720 9414
- ❖ Up to 100 people can gather in outdoor public spaces (as at 1 May 2021)

GENERAL MEETINGS

General meetings are held between February and November on the third Monday of the month from 7:30 PM at the Toowong Uniting Church Hall, 82 Sherwood Road Toowong. This location is conveniently reached by public transport and is approximately 200 m from Toowong Village Shopping Centre, Toowong Railway Station and the main bus stops. Street parking is available near the church and there is an off-street parking area on the river side of the church (ignore the permit required sign). Parking at Toowong Village Shopping Centre is free for entry after 6:00 PM.

DIGITAL EXHIBITS AT GENERAL MEETINGS

Do you have something to share at a General Meeting? If your exhibit requires the projector, please arrive by 7:15 PM and liaise with the Lanternist to upload your PowerPoint or jpeg image. We would also love to see your exhibit in the QNC News and online. Please see the Exhibits section of this newsletter.

COMING UP

Monday 17 May 2021

Speaker: Speakers – Narelle Power and Damien White

Topic: Dragonflies and Damselflies of the Gold Coast

Summary: Narelle and Damien have recently published a field guide on the dragonflies and damselflies of the Gold Coast and surrounds. Dragonflies and damselflies (odonates) are becoming increasingly popular for 'spotting' and photographing. However not since 2006 (Dragonflies of South East Queensland) by the late Ric Natrass, has a local regional guide been published. The authors will use images from their book to discuss odonate life history and habitat. They will highlight the more common (and rarer species) present on the Gold Coast and more widely in the SEQ region. For more information please click on the hyperlink below. Limited copies of the guide will also be for sale by the authors on the night of the meeting.

[Dragonflies and Damselflies of the Gold Coast](#)

Monday 21 June 2021

Speaker: Paul Campbell

Topic: Do Bilbies have a future in Queensland?

Summary: Bilbies are the fastest reproducing Australian mammal. They are also ecosystem engineers supporting many other plant and animal species through their activities. Bilbies once occupied over 70% of the Australian mainland but have disappeared from at least 80% of their

former range. In Queensland, bilbies still survive in small isolated populations in the far west and are listed as endangered. The Save the Bilby Fund (STBF) maintains a growing bilby population inside a predator exclusion fence on Currawinya National Park and a breeding and acclimatisation crèche in Charleville. This presentation by Dr Paul Campbell, a director of the STBF, will discuss the

current status of bilbies in Queensland and the Fund's plans to re-introduce bilbies back into parts of their former range.

April general meeting

Dr Vivian Sandoval gave the club a talk on **"The Unseen World Inside Fungi"**

Vivian introduced her talk with some amusing cartoons followed by details of the largest fungus and oldest organism on earth – a Humongous Fungus; 8,650 years old with a mass of 35,000 tons covering 965 ha. She then went on to outline the evolution of fungi, explaining that they are more closely related to animals such as humans than to slime moulds or Archaea.

True fungi are divided into 5 phyla: Basidiomycota, Ascomycota, Glomerulomycota, Zygomycota and Chytridiomycota. The visible part is, of course, merely the fruiting body with its cap or pileus on top of the stalk or stipe. There are annual fungi such as the agarics and perennial fungi such as the tree bracket fungi, Polypores.

After warning against consumption of wild mushrooms with the illustration of the common Green-gilled Lepiota, *Chlorophyllum molybdites*, (common in our lawns which could be mistaken for an edible mushroom with dire consequences), Vivian went on to speak about one of her special interests which is in the many beetles which reside in fungal fruiting bodies, showing pictures of the minute tree-fungus beetle, and one of a larva of *Gyrophana* eating the spores along the gill systems of fruiting bodies. Other illustrations followed showing the Flat Bug, (Aradidae) eating mycelial threads, the Banana Stalk Fly, (Neriidae) eating the cap of Porcelain Mushroom, *Oudemansiella exannula*, and the strangely named Pleasing Fungus Beetle, *Ephiscaphula australis* and Green-headed ants, *Rhytidoponera metallica*, living together on the underside of a fungal cap.

Further connections between insects and fungi were illustrated by the Stinkhorn family, whose odoriferous, sticky glebas attract flies which then disperse spores which have become attached. Of the 80 families of beetles, 25 are mycophagous (eaters of fungi). Vivian showed photos of a tiny beetle, *Byrsax mackeayi* (Tenebrionidae). Some beetles appear to live symbiotically with fungi and Vivian showed a number of photos taken locally to illustrate this point, including a photograph taken by Colleen Foelz of frass from *Hexagonia* sp found on a bracket fungus which had sparked much discussion, before its identity was established as originating from larvae of *Platyderma* sp. Other photos from Wayne Boatwright from Queensland Mycological Society showed tubes protruding from a *Ganoderma australe* which contained caterpillars, possibly *Psychidae* or *Tineidae*.

Vivian then turned to the importance of fungi in the functioning of ecosystems with their recycling of nutrients which is crucial to food chains. Vivian outlined the advantages of her work with beetles in fungi since specimens are easy and cheap to collect, and easily bred in the lab, taking up little space while showing high diversity and abundance. Vivian finished by encouraging members to collect specimens of infested fungi for her further research.

EXCURSIONS

Fees apply for weekend camps of \$2 per adult per night, plus other camping fees, if applicable. Registration for all excursions is with the Leader or contact given. Those participating in any Club activity do so as volunteers in all respects and as such accept responsibility for any injury to themselves, however incurred. The Club or its officers cannot accept any liability or responsibility.

A WORD FROM BARNEY – EXCURSIONS SECRETARY

Do you know of a great place that other naturalists might enjoy exploring with you? We are looking for people to suggest excursion locations and for volunteer excursion leaders. If you are interested in leading an excursion, **contact Barney by email excursion@qnc.org.au or telephone: 07 3720 9414.**

EXCURSION SIGN-ON SHEETS

QNC asks all people who attend excursions to sign an Attendance Sheet. This is part of the current COVID Safe arrangements and provides a record of your attendance in case it may ever be necessary to make an insurance claim. It also offers the option of recording your email address so that you can receive a species list from the excursion.

REGISTRATION GUIDELINES DURING COVID-19

To comply with government regulations during the COVID-19 pandemic, the Club is changing the way that registrations occur for Club outings. These guidelines are listed below. Note that the Club may need to change the guidelines at short notice to comply with ongoing changes in government regulations.

Current Guidelines:

- The number of participants at Club activities may be restricted.
- **Members must register via email** to the Excursion Secretary at excursion@qnc.org.au at least 24 hours before the commencement of the outing with the names of each attending person.
- To limit the number of people, registrations will be awarded on a first in first served basis, with members advised if they are successful or not in their application.
- Participants will need to maintain social distancing requirements for the outing.
- *Please do not attend QNC outings if you are feeling unwell or showing cold or flu-like symptoms.*

EXCURSIONS COMING UP

May 14 (Friday) – 16 (Sunday): Cooloola BioBlitz – Rainbow Beach

Dates: 14-16 May 2021

Leader: Judy Haines

Phone: Judy 0402 236 359

Meeting location: Rainbow Beach Community Hall - 32 Rainbow Beach Rd, Rainbow Beach QLD

Meeting time: Friday 14 May 3:30pm Registration Desk opens

Saturday 15 May 8:30am Field Excursions commence

Register: by email to excursion@gnc.org.au with BioBlitz in the subject line. Please include names of all attendees and a contact number for COVID-19 contact tracing.

Details: The Cooloola BioBlitz is a ticketed event run by Cooloola Coast Care. QNC members are welcome to participant and Judy has kindly agreed to coordinate.

Details of the BioBlitz are available at this link [Cooloola Bioblitz 2021](#)

A **BioBlitz**...is an intense period of biological surveying in an attempt to record all the living species within a designated area. Groups of scientists, naturalists and volunteers conduct an intensive field study over a continuous time period.

What happens at the Cooloola BioBlitz?

On **Friday** afternoon and evening, we have workshops, dinner, speakers and optional nocturnal field trips (frogs and insects).

During the day on Saturday and Sunday, we invite participants to select their preferred group from an array of scientists and expert enthusiasts, choosing a different group on each day. Some groups will be travelling on 4WD access roads while others will go to sites accessible by 2WD cars. Once on site, everyone will walk into the area and conduct the survey using their phones or pen and paper to record sightings.

The leaders will have a specialty such as fungi, mosses and lichens, insects, botany or birds but you will also learn more generally about the habitats you'll encounter. Groups are kept to a maximum of 10 people (except for the special Nature Journaling Art Group which is a group of 15)

In the evening on Friday and Saturday, there will be dinner (pre-paid ticket holders only) and speakers and optional nocturnal field trips to choose from as well as some short outings (Magical Moments).

Please note: QNC member Dion Dior will be conducting a Nature Journaling Art Program (Additional fees apply)

May 23 (Sunday) : Upper Christmas Creek

Date and time: 23 May at 0900

Leader: Ron Carr

Phone: Ron 0421 382 500

Directions: Pass through Beaudesert staying on Mt Lindsay Highway. At Laravale (14 kms south of Beaudesert) turn left into Christmas Creek Road (CC Rd). It is important to note the odometer reading at this point as rural property numbers reference the distance in kms from this point to the property. We will be meeting at 3275 CC Rd so it is 32.75 kms from this turnoff. At this point take a left turn into a track and drive into the grassy paddock where there is plenty of room to park. The location will be made obvious by signs and the presence of people.

The plan is to meet at the location at 9:00am which would require departure from northside Brisbane areas not much after 7:00am.

Register: by email to excursion@qnc.org.au with Christmas Creek in the subject line. Please include names of all attendees and a contact number for COVID-19 contact tracing.

Details:

Our day excursion will be to the upper end of Christmas Creek Road, Lamington, near where it meets Lamington National Park. The final kilometres of the road (from about 2900) are unsealed but easily navigable by 2wd vehicles. The Lamington Landcare Group have been energetic and successful in reclaiming significant areas of their properties from the Lantana and glycine weed infestations that have claimed large areas of neglected land. They now have reclaimed some beautiful stretches of creek bank with planted and some natural regeneration beneath the emergent flooded gums (*E. grandis*) which have survived the duration of the cattle grazing era. These are magnificent specimens that possibly took advantage of the earlier degradation of the original rainforest to establish themselves.

The Landcare Group have invited us to walk the creek banks where convenient and adjacent areas where not convenient to share the experience and with a view to us helping them recognize any subjects of natural history encountered, particularly plants.

Our hosts for the day will provide morning tea at a convenient location and we will provide our own lunches.

June 27 (Sunday) : Mt Mellum Nature Refuge

Date and time: Sunday 27 June at 8:30am

Leaders: Ian and Chrissie McMaster and Gretchen Evans

Phone: Ian 0419 476 980

Directions: Note that GPS won't get you there! You need to follow the instructions on p.8. Travel time from Brisbane CBD is about 1 hour and 20 minutes. However, the excursion will be on the first weekend of the school holidays, so consider allowing a bit longer. The address is 521 Mt Mellum Road. However, again DO NOT put it in your GPS and then expect to get valid directions. Even the police got lost trying to do that! If you have problems give Ian a call.

Directions from Brisbane:

- Come up Steve Irwin Way to Landsborough, then after you cross the railway line take the Maleny road.
- At the first roundabout, turn left into Gympie St. South.
- Then take the first right into Lower Mt Mellum Rd.
- Go up the hill for about 4km, then take the first turn left into Mt Mellum Road
- Follow Mt Mellum Road to the end (2km). When the bitumen ends, there is a turning circle with mailboxes, and a track to the left of the mailboxes. Take that track. The road ends at our front gate, and it is another 200m down the driveway to the house.

Register: by email to excursion@qnc.org.au with Mt Mellum in the subject line. Please include names of all attendees and a contact number for COVID-19 contact tracing.

Details:

This outing is a reschedule of the outing that was cancelled in March due to bad weather.

The excursion will take place on the private property of Ian and Chrissie McMaster, which includes a 100ha Nature Refuge on the western side of Mount Mellum. The terrain varies from flat to very steep, with sandstone cliffs and waterfalls in the deeper gullies, so there are plenty of options to test enthusiastic explorers of nature. About 80% of the property is natural bushland, on a variety of different soils, with black basalt derived soils on the mountain, sandstones on the western and northern slopes, and alluvial silts derived from both soils in the creek systems further down. These soils support a mix of subtropical lowland rainforest, wet sclerophyll dominated by flooded gums, and drier sclerophyll dominated by blackbutt and tallowwood. The varied soils and aspects mean there are lots of different plants, with about 500 species recorded here. Consequently, many different birds are seen here, along with the usual range of mammals and reptiles. Of particular interest are a significant number of old growth eucalypts with big hollows that host a population of greater gliders.

Note that some of the outing will involve traversing steep slopes and in some places scree. However, there are options for those less able.

The owners can provide lists of plant, birds, and pretty much anything else - except fungi. Members will have to ask Gretchen for advice on that one!

Please bring some food for the day and water.

July: Date Claimer

July 24 (Saturday afternoon) at Wellington Point. "Mud walk" with Myriam

"I am always happy to slog around mudflats, snorkel across seagrass meadows in 30 cm of water or slide around on slippery rocks. I went through the Tide Tables for 2021 and Saturday, July 24 has a fairly good low tide at 15:34.

With regard to an area we could visit, a walk out to King Island from Wellington Point is always rewarding and some time has passed since we last went there."

EXCURSION REPORTS

Easter Camp April 2 (Fri) to 5 (Mon) 'Utopia', Boompa, near Mt Walsh NP

By Barney Hines

The Gods looked kindly on the QNC Easter camp. Threatened by a COVID lockdown that was lifted on the Thursday morning and then by an initial flood warning issued by the Bureau of Meteorology on the Friday morning, there was a feeling that things might not come together. However, the COVID stayed at bay and the weather, whilst a bit grey and wet, remained tolerable.

Eighteen keen types, including three families, braved the doomsayers and assembled at Utopia. Friday afternoon saw participants go for a short walk from the camp through bush tracks to the main causeway over Eel Creek. The creek was flowing over the causeway and the waterhole was full. Highlights of the walk were flowering Flat-stem wattles *Acacia complanata* as well as Azure Kingfishers and Pacific Baza.

On Saturday we walked into the National Park to the rockpools on Waterfall Creek. This was a great walk, initially through regenerating dry rainforest and then into dry sclerophyll forest with a heathy understorey. Plant highlights included flowering Wine-leaf Hibiscus *Hibiscus vitifolius*, Blue Damperia *Damperia sticta*, *Acacia pubecosta* and *Triplarina volcanica*. Butterflies of interest included Four-barred Swordtail *Protographium leosthenes* and Pale Green Triangles *Graphium eurypylus*.

On Sunday we headed north along a fire break from the National Park carpark through greatly disturbed dry rainforest. One plant of interest here was the Wallaby Apple *Pittosporum spinescens* which looks akin to the wild lime *Citrus australis*, but to which does not have anywhere near a similar nor an appealing taste!

The rain came on Sunday afternoon, but we were rescued by Tony and Fiona's fabulous camp kitchen complete with comfy couches on which we could grace ourselves. Tony kindly presented a fascinating talk about his travels to the Huon Peninsular of Papua New Guinea where he has made several trips to record bird songs, many of which had not previously been recorded.

With all the rain, frogs and herps were starting to move and the Odonata were active also. A yellow-faced whipsnake was observed around camp as well as the Dubious Dtella *Gehyra dubia*, the Robust Velvet Gecko *Nebulifera robusta*, and the frogs *Litoria rubella* and the Green Tree Frog *L. caerulea*. An ephemeral dam in the spotted gum forest near camp had a chorus of *Uperolia laevigata*, with *Adelotus brevis* also heard and a lonesome scarlet sided pobblebonk *Limnodynastes terraereginae* resting on the bank. A squirrel glider was observed in the eucalypts nearby.

Thanks again to Tony and Fiona for welcoming the QNC and being great hosts. Some photographs taken on the excursion are on p.10.

Some of the observations were added to iNaturalist,
https://inaturalist.ala.org.au/observations?d1=2021-04-02&d2=2021-04-05&place_id=any&subview=table&user_id=gjn&verifiable=any



Wine-leaf Hibiscus *Hibiscus vitifolius*



Caterpillar of Pale Green Triangle
Graphium eurypylus



Wallaby Apple *Pittosporum spinescens*



Red Arrow *Rhodothemis lieftincki*



Blue Damperia *Damperia sticta*



Scarlet sided Pobblebonk
Limnodynastes terraereginae



Australian Leafwing *Doleschallia bisaltide*



Four-barred Swordtail *Protographium leosthenes*

VALE GRACE LITHGOW

QNC Inc. acknowledges with sadness the passing of the naturalist **Grace Lithgow**.

Grace Lithgow joined the Chinchilla Field Naturalists' Club (AKA CFNC or "Nats") in 1969 and served twice as President, as Vice-president, and as the Club's Librarian until she was unable to continue in that role due to failing eyesight and mobility. In addition to serving long periods on the Club's management committee, Grace focussed on making meetings and outings interesting for junior members and encouraging them to contribute their observations at meetings and in the Club's magazine, 'Urimbirra'.

Grace was a much respected Queensland naturalist. She had a particular interest in local flora but was known in Queensland and throughout Australia for her skills and contributions in many aspects of natural history. These contributions began with studies of marine life of the Queensland coast adjacent to the Arafura Sea, Arnhem Land and some Pacific Islands, where she photographically documented marine life and made an original collection of shells. Using her own resources she developed skills in botany and zoology and combined these with an artistic talent to produce field guides used by both the amateur and professional. Of special note are "60 Wattles of the Chinchilla and Murilla Shires of South East Queensland", and "Some Mistletoes and Other Semiparasitic Shrubs". These guides are recognized for the botanical correctness of their illustrations. The wattle drawings have been used as illustrations in Bruce Maslin's key to Australian Acacias. A special feature of the acacia book is the development of a unique key that will identify the wattles of the Chinchilla and Murilla Shires with or without flowers. The mistletoe book describes each species and records host plant species on which each mistletoe species grows and which are major host mistletoe plants for butterflies of the area. These aspects are original work not previously documented.

Grace's skills were not limited to wattles and mistletoes. She contributed sections on insects, molluscs, sedges and grasses to two editions of the Chinchilla Field Naturalists' Club book 'Going Bush with Chinchilla Nats', various plant and other lists for the club newsletter, and updated botanical names in 'Jimba to Dried Beef Creek', a recounting in detail of Ludwig Leichhardt's travels and observations in the Chinchilla and Murilla Shires.

Her collection of more than 1000 different species of insects is now housed in the Queensland Museum and she lodged 526 botanical specimens with the Queensland Herbarium. Special collections of butterflies, cicadas, grasshoppers, plant fossils, fresh water snails, frogs and tadpoles have all been provided to specialist researchers in Museums, Universities and CSIRO and have enabled them to either extend the range of known species or describe new species.

In 1994, having collected and sent a variety of burrowing cockroaches to the appropriate experts, one was found to be a previously undescribed species which subsequently was named for Grace - *Macropanesthia lithgowae*. Also, for collecting some of the first specimens of a new cicada and for contributing so much to the documentation of the natural history of the Chinchilla region, the cicada *Gudanga lithgowae* was named for her in 2012.

For something quite different, Grace also made drawings of Pliocene fossil bones and teeth which were found by Chinchilla locals Cec and Doris Wilkinson of Chinchilla who were working under the

auspices of the Queensland Museum. These drawings enabled Lyndall Dawson (University of NSW) to compare specimens with other Australian collections.

Such was her reputation that, in 2006, Grace was nominated for, and was presented with, the Queensland Natural History Award in 2007. Since 1992, the Queensland Natural History Award has been presented annually by the Queensland Naturalists' Club to give recognition to persons who have made outstanding contributions to natural history in Queensland.

ITEMS OF INTEREST

The Queensland Herbarium hosts free public webinars, usually once a month, between 12pm and 1pm. These are live streamed events using Microsoft Teams webinar.

RSVP is essential – email geoffrey.c.smith@des.qld.gov.au to register for a session.

10 May 2021, 12-1pm - Our changing world

There will be two short presentations from the program of the **Ecological Society of Australia (ESA) Conference 2020 - Understanding Ecological Extremes – Mechanisms of Resilience and Recovery**.

Presentation 1: Climate change impacts on cloud forests in the Gondwana rainforests of Australia World Heritage Area by Melinda Laidlaw

Presentation 2: Conservation status of a dynamic keystone resource: the decline of nectar producing habitat for flying foxes by Teresa Eyre

14 June 2021, 12-1pm -Assessing terrestrial & aquatic conservation values across Queensland

Presenter - Steve Howell, Department of Environment and Science

Biodiversity Planning Assessments (BPA) and Aquatic Conservation Assessments (ACA) assess relative conservation values for input into planning, policy and legislation. The assessments use peer reviewed evidence-based methodologies that incorporate both quantitative (e.g. flora and fauna records) and qualitative (expert opinion) information to deliver an objective, robust and tenure-blind assessment of conservation values. Conservation assessments have now been completed across all of Queensland and we will present a summary of the results with a focus on how anyone can access, interpret and apply the results to help answer a wide range of questions.

EXHIBITS AT GENERAL MEETINGS

Alan Cribb gave a short talk on cork with an accompanying exhibit of a historically significant book MICROGRAPHIA, first published in 1665.

In 1663, Robert Hook, an early microscopist, gave a presentation to the Royal Society in London showing a slide of a slice of cork. He published the book *Micrographia* in which he described holes in cork as “cells”. This was the first use of the term for the basic units of all living things. Cork consists of dead cells with walls composed of the waxy substance suberin, and is formed by dividing cells near the outside of the trunk of Cork Oaks which continues indefinitely.

The suberin is impervious to water and gases and protects the trunk against insects, bacteria and fungi. In most trees this layer is replaced by others from the centre of the trunk so there is no pure cork. In the paperbark teatrees the dividing layer comes off as a thin layer and another one develops underneath-similar to cork. This bark is a good insulator and was used in early settlement times to keep perishable foods in good order and shops used to sell rolls of paperbark for lining plant pots.

Barry Jahnke spoke about the QNC excursion to Minto Craggs. He also reported on the Fassifern Nats trip to Helidon Hills, an area of stringybark forest, in which was prominent Flat-stemmed Wattle, *Acacia complanata*, of which the leaves had been heavily eaten. Barry showed a photo of meat ants *Iridomyrmex* sp living in symbiosis with Imperial Hairstreak butterfly pupae and larvae, *Jalmenus evagoras*.

Leith Woodall showed photographs of Sand Wasps taking green bugs down into a round shaft hole for the wasp pupae to feed upon. She made these observations after noticing multiple holes in the potting mix of pot plants in her garden and realised that there was quite a thriving colony there. There are about twenty species of Sand Wasp which each prey on a different species of insect.

ANNUAL MEMBERSHIP SUBSCRIPTIONS

DUE 1st JULY

Subscription Type (please tick)

Family \$40 Single \$25 Student /Junior \$15 Club Badge \$15

Payment Options

❖ **By Post**

Post a bank cheque or money order with this completed form to:

The Treasurer, Mr Mike Anderson

164/462 Beams Rd

Fitzgibbon

Queensland 4018

❖ **At a General Meeting**

Hand payment to the Treasurer in an envelope with this completed form.

❖ **By EFT**

Please transfer payment to the following bank account and email your details and newsletter preference to treasurer@qnc.org.au

Account: The Queensland Naturalists' Club Inc.

Bank: Westpac

BSB: 034-068

Account Number: 901249

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