

QNC NEWS

Newsletter of The

QUEENSLAND NATURALISTS' CLUB INC.

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General Meetings:

May 16 Elle Stephenson Lemurs

June 20 Roly Sussex Unnatural history

PROGRAMME

Excursions:

May 15 WWL Oxley Creek
June 11 Kalbar and Obum Obum
June 19 WWL Rocky Water Holes Creek
July 1-4 Aroona, Mt Mort
Aug 17-22 Long Excursion, Cape Hillsborough

March 2017 Lord Howe Island

Lemur Photo: Elle Stephenson

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Deadline for News items - 15th of each even numbered month.

The Queensland Naturalist is published twice per year.

ARTICLES to the EDITOR, Dr Peter Woodall at journal@qnc.org.au

General meetings are held on the third Monday of the month, between February and November, starting at 7.30 pm, in the Royal Geographical Society of Queensland building at 237 Milton Road, Milton. This is near the corner with Baroona Road and next to the Castlemaine Perkins (Fourex) Brewery and the Theological College entrance lane. Entrance in Milton Road, with side ramp. Parking available in adjacent streets. For those who park in the Theological College car park, please put a \$3 donation in the box at the meeting reception. Milton railway station is directly opposite the building and there is a pedestrian underpass from the station under Milton Road.

Daytime meetings will be held occasionally at the Queensland Museum from 12:30 to 1:30 pm.

General Meetings

MONDAY 16 MAY Elle Stephenson Lemurs and Reforestation in Madagascar

Elle Stephenson spent 9 months collecting behavioural data on the greater bamboo lemur, *Prolemur simus*. This species was previously declared extinct, but rediscovered in a fragmented forest near Kianjavato. The lemur was listed as one of the 25 most endangered primate species and very little was known about their behaviour and ecology. As a field technician she worked with local guides to monitor 5-6 family groups that rarely interacted. She took instantaneous behaviour samples and recorded phenological data on the plants they were eating (mostly bamboo and fruits). Whilst there she also assisted with a reforestation program, in which she collected faeces samples from the black-and-white ruffed lemur, which is listed as critically endangered and is a crucial part of the primary rainforest ecosystem. They eat many of the seeds and act as seed dispersers. So she collected the faeces, grew the seeds into seedlings and then planted them in areas that were previously destroyed. Elle also worked to reconnect forest fragments, as this is critical for the weirdest lemur, the aye-aye, a species that is nocturnal and solitary and has many local taboos surrounding it.

Spending many days in the forest Elle became familiar with many different species of lemurs, birds, reptiles and invertebrates. Her knowledge of these species remains poor as the locals she worked with had very limited English and she can't speak French or Malagasy. There are also large gaps in our knowledge when it comes to Madagascar biodiversity, so it is possible that she may not ever find the answers to some of her questions. Please join Elle for a night in discussing her adventures.

MONDAY 20 JUNE C T White Memorial Lecture Emeritus Professor Roland Sussex OAM Unnatural history: information and misinformation in science

Cyril Tenison White was a meticulous scholar of the trees, plants and weeds of Queensland. His work is a model of the observation, collection, description and publishing of a compendious account of Queensland plants, trees and weeds. His many volumes show a deep concern for the security and integrity of species and their interrelations, together with their place in the broader eco-system and the responsible, balanced reporting of the results of his work. His work is an exemplar of "natural history". I also believe that he would have been a keen and critical participant in several of the current debates about the wider implications of science at the beginning of the 21st century.

In this memorial lecture I will consider two contemporary controversies in science and their public reporting and discussion. These issues particularly interest me as a linguist because of the ways in which the language of debate has affected the public acceptance of scientific facts and in some cases has been used for the purposes of persuasion and politics. In some respects, these controversies have departed from proper scientific discussion and have become what we can call examples of "unnatural history".

Both these cases belong to the long history of science denial, from Galileo and the heliocentric solar system, to Darwin and Russell and natural selection, to the relation between smoking and disease. In all these cases established frames of belief and orthodoxy have resisted accepting what the science was saying. Such processes can also be deeply destructive of genuine scientific work, as in the influence of the Soviet agronomist Lysenko and the denial of Mendelian genetics by the scientific establishment of the Soviet Union in the 1930s and 1940s.

The first topic is "climate change", which has created deep fissures in the world of science and between science and society and politics. This controversy shows some genuine and some confected aspects of dialectics in a crucial scientific question which has become deeply politicized. 97% of climate scientists agree that the world is warming and that humans are responsible. And yet there is a vocal and powerful counter-lobby, centred on the petrochemical and coal industries and with major political support, particularly on the right of politics in the USA. The ways in which they attack notions like "consensus" among specialists and use broadcast and digital

media to propagate their ideas, reveal how public debate can appear to be far more evenly contested than the weight of the science behind it.

The second controversy involves GM, or genetically modified foods. Here the science is less complete and persuasive. One part of the debate involves whether GM foods are safe for human consumption. Here the consensus – that word again – is on the affirmative, though with significant pushback from bodies like Greenpeace and the Union of Concerned Scientists. More controversial, however, is whether releasing genetically modified species into the environment will not disturb existing ecosystems. Might they, by showing superior resistance to infections and insects, result in a lessening of biodiversity?

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Roster for general meetings

May 16 Reception:
Supper:

June 20: Reception:
Supper:

If you can assist at meetings with reception or supper, please advise a Councillor.
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Meeting Reports

General Meeting: 21 March

Our guest speaker this evening was Dr Lindsay Popple whose interest in cicadas started while he was still at school and in particular, on the Queensland Naturalists' Club long excursion to Barakula State Forest in 1997. One day, while there was nothing happening on the bird watching front, his attention was taken by a persistent ticking and when he eventually located its source, discovered not only a one cm. long cicada but what eventuated to be a new genus and species. A particular characteristic of cicadas is that each species has a unique call, so his interest developed in recording calls and collecting a library of sounds for identification of species and consequently, preparing distribution maps. The main aim of his PhD research has been to gain insight into ways of better defining species boundaries within insects, particularly those that use acoustic communication as part of their mating behaviour.

His address to the Club was most interesting and informative, giving us a succinct yet comprehensive account of cicadas, ranging from their basic anatomy, life cycles and distribution through to details of their production of sound, the use of sound in mating and its impact on the acoustic landscape.

Cicadas belong to the Order Hemiptera, along with other organisms considered bugs such as hoppers, aphids, scale insects, lerps and true bugs. All are characterized by mouthparts modified for sucking and most are plant feeding. Both forms of the cicada, the underground nymphs and the aerial adults, feed by tapping their proboscis into the xylem tissue of plants - stems or roots according to whether adult or nymph. Nymphs play an important role in aeration of soil and cycling of organic material within it. In Australia, life cycles vary in length depending on the species and can range from one year to several years, with the actual time of emergence appearing to coincide with favourable conditions of temperature and rain. By contrast, in North America, there is a particular genus of cicadas which lives as nymphs for either precisely 13 or 17 years* and at any particular locality, the total population emerges together in great numbers. Shapes of adults of different species vary greatly and their sizes mostly range from 2cm to 5cm. Adults of small species survive for between one and four weeks while large ones last up to three or four months.

Cicadas are grouped into two families, the Tettigarctidae (the hairy cicadas) and the Cicadidae which divides into three sub-families: Cicadinae, Tettigadinae and Cicadettinae. There is very high diversity in Australia with over 200 named species though about 1000 are estimated to exist here. This includes the only two extant members of the once widespread Tettigarctidae, one in alpine S.E. Australia, the other in Tasmania. It is considered that eastern Australia and regional southwest Western Australia have possibly the highest diversity of species on Earth; for example, 17 species in a suburban Brisbane block and 26 species at Myall Park

Only male cicadas call and do so for the sole purpose of attracting a mate. Each species' particular call, its acoustic signature, is characterized by a unique rhythm, pitch and pattern, characteristic modulations and amplitude accent. As it is genetically encoded, it remains constant across generations. The sound, which lasts one to two milliseconds, is produced by the movement of the tymbals, a pair of ribbed membranes with attached muscle, which sit below each side of the anterior abdominal region. The sound is generated when the tymbal muscle deforms the ribbed membrane and we were shown pictures of the tymbal muscle fluorescing due to the

presence of the high energy, elastic fluorescent protein, resilin. The male abdomen, being more or less hollow, acts as a resonating chamber and the sound changes as the cicada moves its abdomen up and down. The sounds produced are very loud and potentially damaging to hearing, values of 148dB being recorded. Both male and female cicadas use a membranous structure called a tympana to receive sound and when a male is calling, it disables its tympana by creasing it so as not to harm its own hearing. Cicadas make other sounds when irritated or distressed but these are not unique to species. The continuous physical action of calling produces significant body heat hence the need for thermoregulation; however, it also means that, as the ambient temperature falls later in the day, the cicada can continue to sing using its accumulated body heat.

Different groups of cicadas use different strategies for attracting mates. The Cicadinae aggregate locally and call loudly and synchronously. Females fly into the area attracted by the calling and are mated by one of the group. Species illustrated included the Razor Grinder (*Henicopsaltria eyedouxia*), Yellow Belly (*Psaltoda harisii*), Clanger (*Psaltoda claripennis*), Eastern Double Drummer (*Thopha saccata*) and the Cherrynose (*Macrotristria angularis*.) The smaller sized Cicadettinae do not aggregate but sing either independently or in unison with others nearby. The males and females of this sub-family exhibit a duetting behaviour in which there are short silent periods within the male's call during which the female makes a clicking sound, so verifying she is of the same species. The male then seeks out the female. Species illustrated were the Southern Red-eyed Squeaker (*Pauropsalta notialis*), Creaking Branch Cicada (*Auscala spinosa*), Black Tree-ticker (*Birrima varians*), Orange Clicker (*Kobonga umbrimargo*), Floury Baker (*Aleeta curvicosta*) and the Bladder Cicada (*Cystosoma saundersii*) which calls at nightfall. The two Tettigadinae are nocturnal and by contrast make no airborne sound but transmit vibrations through the substrate as do leafhoppers and planthoppers.

Cicadas are subject to predation by a wide variety of agents including birds, people, spiders and cicada killer wasps. The Spotted Predatory Katydid (*Chlorobalius leucoviridis*) is particularly efficient in that it actually attracts a male to itself by clicking like a female cicada.

The peak season for cicadas calling is December to January and areas of Queensland with the most remarkable acoustic landscapes are the Brisbane Forest Park, the Granite Belt, the Brigalow Belt and the Atherton Tableland. *An interesting article on this *The Cicada's Love Affair with Prime Numbers* at www.newyorker.com Ed.

General Meeting: 18 April

Dr John Moss spoke about mistletoes in general and how they apply to the Australian landscape. Mistletoes are flowering parasitic, shrub-like woody plants, permanently attached to stems or branches of trees by haustoria. A few are root parasites; all are hemiparasites. There are about 1400 species in the world with 90 or more species in Australia, though none is in Tasmania. There is only one species in Northern Europe.

Mistletoes invade the cambial tissues of the trunk and then absorb water and nutrients from the host, photosynthesise carbs (sugars and cellulose) and manufacture other necessary compounds such as plant hormones. They live in harmony with their host unless one or both are stressed for example by drought or insects in which case often the mistletoe dies first. Trees can sometimes cut off supply to the mistletoe.

Factors influencing host species are unknown. Some mistletoes are generalists like *Dendrophthoe vitellina* which is hosted by 100 species in 20 genera.

Dispersal vectors include frugivorous birds, especially the mistletoebird and some mammals.

Propagation is achieved by accidental deposition on favourable sites on the host plants.

Seed germination is high but attachment success is low.

No one really knows why mistletoe leaves resemble those of their hosts but it may be hormone related.

John showed photos of several Amyema species with their colourful flowers. These included:

Amyema congener; Amyema miquelii hosted mainly by eucalypts and occasionally acacias;

Amyema quandang on some acacias, e.g. brigalow, gidgee, mulga, weeping myall;

Amyema mackayensis which is only on Avicenna marina.

Loranthaceae is the predominant family in Australia with 75 species in Australia and 910 species worldwide. Mistletoes in the family Viscaceae are mostly secondary hemiparasites, that is, they utilise other mistletoes.

In Australia there is only one mistletoe that is classified as a root parasite and this plant is in the family Santalaceae.

Mistletoes provide food for honeyeaters and frugivorous birds, possums, butterflies, moths and invertebrates. They also provide shelter and nesting opportunities. Mistletoes have been found to play an important role in resource biodiversity due to soil enrichment from the fall of leaf litter nutrients.

<u>Footnote:</u> "The Mistletoes of Subtropical Queensland, New South Wales and Victoria" by John T. Moss and Ross Kendall. The Club has purchased a number of these books for sale to members at \$25 each. RRP \$30.

Editor: An excellent Review by Glenn Leiper is reproduced on page 16 with Glenn's permission.

Excursions

Fees apply for weekend camps - \$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.

May 15th Oxley Creek

WWL activity Oxley Creek Catchment

Sunday 1.45 for 2pm - 4pm Oxley Creek at Dan Stiller Memorial Reserve / Glider Forest Conservation area / Greenwood Lakes. Contact Helen Schwencke 0423 127 492

Meet: corner Johnson Rd and Paradise Rd, Forestdale, UBD 239 E-F13. Accessible from Brisbane City by bus routes 100 & 534, or 460 & 534.

Register by email: excursion@qnc.org.au with the subject: WWL Oxley Creek 15.5.16 or through QNC's Meetup website: http://www.meetup.com/ (become a member first).

The landscape of this part of Oxley Creek is vastly different to the picturesque winding creek of the 1920's. The large lakes and terraced banks now showing were carved out by many years of commercial sand operations. Now sand mining has ended the area is being naturalised again and forms part of a key wildlife corridor running from Brisbane to Beaudesert.

June 11th Kalbar and Obum Obum

Saturday 9.00am Leader: Barry Jahnke Phone: 0411 278 865 Register by email to excursion@qnc.org.au - subject "Kalbar & Obum Obum" or with the leader.

A leisurely day outing is planned to two properties, the first of which is about 80 minutes drive from central Brisbane. You are welcome to arrive early as there are usually birds in the garden.

We plan to start at 9.00am at Barry & Marjorie Jahnke's place, "Melaleuca", at 11 Heit Road, Kalbar where after a quick bring-your-own morning tea we will walk around part of this 17ha Land for Wildlife property. The main features are the saline artificial wetlands and some woodlot plantings.

You will be able to have your lunch in or around the house where hot water will be provided.

After lunch we will drive to Aubrey & Merrilyn Podlich's place at Obum Obum. This property which is also part of the Land for Wildlife scheme has areas of remnant Brigalow-Softwood Vine Scrub and is noted for its variety of plants and numerous animals, especially birds. Here we will wander around some of the rough tracks in and around the scrubs or sit by the small dam and let the birds come to us.

As usual sturdy footwear is recommended. Bring a chair.

Directions: Select your own route to Kalbar - from the Brisbane area the most common routes are either via Warrill View on the Cunningham Highway or via Peak Crossing, where the turnoff is at Yamanto and signposted to Boonah. On either route look for Kalbar signs - after Warrill View and at Peak Crossing respectively.

In Kalbar look for the Royal Hotel and diagonally opposite is a former general store under the name of Wiss. Beside the building is a narrow street called Welge Street. Drive down this street, crossing Purdon Street and passing 'Farmcraft' and just around the corner is Jahnke's, Number 11, "Melaleuca".

The QNC always prides itself on going to interesting places with interesting people. Council is seeking venues and enthusiastic leaders to guide us through 2016. If you know a place that you would like the club to visit, please contact Barney Hines or email excursion@qnc.org.au

Council wishes to remind excursion leaders that a contribution toward reconnaissance costs can be claimed from the Club.

WANTED Excursions Ideas and Leaders

June 19th Headwaters of Rocky Water Holes Creek

Sunday 1.45 for 2pm - 4pm Headwaters of Rocky Water Holes Creek, Wilcox Park adjoining Toohey

Forest at Salisbury & Russ Hall Park. WWL activity Oxley Creek Catchment

Meet: Netball Association carpark on Annandale St, Salisbury, UBD 200 C6. Also accessible by bus route 120 from Brisbane City, use Dulcie St, Stop 52 on Orange Grove Rd., Salisbury.

Rocky Water Holes Creek drains Wilcox Park and the (mainly) west facing slopes of Toohey Forest through a large industrial estate. It eventually joins Moolabin Creek to flow into Oxley Creek near its mouth at Rocklea. We will be looking at the vegetation of Wilcox Park above the former quarry, now developed as the suburb of Nathan and the revegetation work being done at Russ Hall Park.

Register by email: excursion@qnc.org.au with the subject: WWL Rocky Waterholes Creek 19.6.16; Contact Helen Schwencke 0423 127 492 or through QNC's Meetup website: http://www.meetup.com/ (become a member).

July 1st to 4th Aroona, Mt Mort

QNC Wildlife Survey 2016 at Queensland Trust for Nature Property

Leaders: Harry Hines and Tanya Pritchard (QTFN)

Aim: The aim of the survey is to get a better understanding of the flora and fauna of Aroona.

Background: Aroona is a 2000 ha property recently acquired by the Queensland Trust for Nature, that straddles the Little Liverpool Range, south-west of Grandchester (see www.qtfn.org.au/aroona-nature-refuge). There have been no detailed flora or fauna surveys of the property, nor of the adjoining Mount Beau Brummel Regional Park. A search of the Queensland's WildNet database using a latitude/longitude rectangle that encompasses Aroona and Mount Beau Brummel Regional Park returns less than 80 species (mostly birds) which includes only 8 plant, 2 mammal and no butterfly, reptile or amphibian species.

The survey: We plan to establish several standard fauna survey sites, initially within reasonably close proximity to the homestead. During the initial survey in July we aim to deploy Elliott, camera and pitfall traps and carry out diurnal bird and reptile censuses, owl call playback and spotlighting. If overnight temperatures are mild, we may also set up harp traps for bats at potentially suitable sites. Incidental observations and collecting of flora species not previously recorded will also be undertaken. An inventory of fungi and flora species will also be made, with collections of specimens for the Queensland Herbarium. We hope to undertake subsequent surveys at other times of the year to target herpetofauna and bats and to assess seasonal changes in birds and plants.

The leaders will be onsite from mid-morning Fri 1 July 2016. Friday will involve setting up trap lines and some nocturnal surveys. Trap clearing and a range of other activities will be undertaken during Saturday and Sunday. Traps will be pulled in on Monday (4 July) morning.

The outing is open to all Club members and you are welcome to come for all or part of the excursion.

The camp: The camp will be based at the QTFN headquarters (see below). There is ample room for camping/camper trailers/vans etc on the flats around the homestead. There is a toilet in the homestead but if the number of participants is high we will also provide one or more of the Club's toilets. There is tank water available and a shower for those that need it. No open fires. There may be options for some members to stay in the homestead but this will be assessed on a case by case basis (the preference is for people to camp). A BBQ is available for use as well as a stove top and QTFN will provide a BBQ dinner on the first night, otherwise self-catering. Power is available for charging equipment and for outside lighting purposes. Note that frosts are likely overnight at this time of year.

Directions: The address of the homestead is 338 Alpers Rd, Mt Mort (-27.830236°, 152.417763° GDA94). From Grandchester take the Grandchester-Mt Mort Road and continue to follow as it turns into Alpers Road. Access to the homestead is via an all-weather road suitable for 2WDs. Approximate travel time from Brisbane is 1.5 hr.

Registration: Please register by email to excursion@qnc.org.au or by telephone Harry. Feel free to ring Harry if you require any further information on 3378 6570 (hm) or 0423 782 186 (mob).

August 17-22 Long Excursion 2016 - Cape Hillsborough

Leaders: Myriam Preker & Ian Lawn

This year's Long Excursion is planned for Cape Hillsborough National Park, a ruggedly-scenic stretch of coastline located 50 km northwest of Mackay. The Camp will be based at Cape Hillsborough Nature Tourist Park.

Cape Hillsborough, the youngest volcanic area in Australia, contains spectacular remnants of the world's longest-known chain of continental volcanoes, the "Cosgrove hotspot track". Notable rock formations include: a steep headland, rocky outcrops, overhangs, caves, rhyolite boulders and dark, sandy beaches glistening with flecks of mica.

The vegetation around the park is diverse, featuring lowland rainforests, vine forests growing along the creeks, open eucalypt forests on the rocky hills and headlands covered in hoop pines. There is also a large mangrove community accessible by a boardwalk. The diverse vegetation and topography in the park provide a broad range of habitats supporting an abundance of terrestrial animals: 167 species of birds, 42 reptiles, 11 amphibians and 27 mammals have been recorded from the area.

Marine habitats: The excursion is timed to take maximum advantage of a low-tide series, which will allow us to explore the abundant, rocky tide-pools and other intertidal areas. The sandy beach in front of our campsite is especially interesting at night as numerous marine animals, which have burrowed into the sand to stay moist and cool during the day, come up to the surface to forage. Marine stingers may be encountered year round on northern Queensland beaches, but the excursion has been scheduled to minimise chance of contact. The stinger season for the area between Townsville to Gladstone is December to March.

Climate: We will be visiting during the dry season. Temperatures are typically 21-25°C with overnight minimum temperatures of 13-14°C. The region lies in the trade-wind belt for most of the year giving rise to southeast winds.

Camping: The club has reserved a cluster of powered and unpowered campsites adjacent to a shared, covered camp-kitchen equipped with gas burners and washing-up facilities. This area will make an excellent communal gathering place. Members not wishing to camp can make their own arrangements: cabins are available at the Tourist Park. The excursion will be self-catering and the resort shop carries basic groceries.

Booking: Please register by completing the Booking Form on page 8 which you can mail with your payment or lodge at any General Meeting. If you wish to register electronically, please email a copy of the completed form to: treasurer@qnc.org.au stating the date of the transfer of funds to the Club account. Details in form.

March 2017 Lord Howe Island

Another trip to Lord Howe Island, similar to the ones in 2014 and 2015, has been booked for 11-18 March 2017.

The PACKAGE INCLUDES:

Return airfares ex Brisbane with Qantaslink; Return airport transfers; Applicable Airport Taxes;

Accommodation at Somerset Apartments and All evening meals;

Glass Bottom Boat Trip; Around Island Cruise; North Bay Trip including BBO lunch;

4 lectures; All guide fees with Ian Hutton.

PACKAGE PRICE: **Somerset Apartments** 1 Bedroom Superior Apartment - Twin/Double Cost Per Person \$3,139.00. Other apartment types are available at varying prices.

The trip is now fully booked, but if you are interested in joining a waiting list, please let me know. Email me, Lynette Haselgrove, at news@qnc.org.au.

CAPE HILLSBOROUGH LONG EXCURSION 2016 – AUGUST 17 - 22 BOOKING FORM

Please Print

Flease Film
Name:
Postal Address:
Email:
Phone (Home): (Mobile):
Type of campsite required (please tick one below):
Unpowered Site (\$175)*Powered Site (\$200)*Own Arrangements (\$20)** (= 5 nights at \$2 per person per night)
No. of adults: Names:
* Single site fee applies to a maximum of 2 adults per site. Extra adults: \$70 per person. ** Club Fee Only as Cabin Accommodation is to be arranged directly by you with the Cape Hillsborough Nature Resort. *** Cost children: \$40 per child.
Total Amount Payable \$
 Cheque or Money Order ENCLOSED with this completed form OR
 DEPOSITED in club account on (date) and this form emailed to <u>treasurer@qnc.org.au</u> or posted to QNC, PO Box 5663, West End 4101.
Bank Deposit Details:- Account Name: The Queensland Naturalists' Club Inc Bank: Westpac BSB: 034-068 Account No.: 901249 Reference: Your Surname and L/E

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Account: The Queensland Naturalists Club Inc Bank: Westpac BSB: 034-068 Account No.: 901249 Reference: Your name
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Excursion Reports

February 21 Iron Bark Gully

Twenty-five members gathered for a leisurely stroll botanising and invertebrate(ising - since a word doesn't exist) along the Crebra Track, part of the Samford Conservation Park. Being a reserve that's part of the Queensland Government's D'Aguilar Range National Park system, there was no revegetation or habitat group associated with the area. While it was an enjoyable walk, due to a very dry summer season there had been little plant growth since a controlled burn at the end of 2015, with very sparse ground cover, so there was little creature life on show.

Helen Schwencke

March 6th Mt Mitchell saddle and summit

A beautiful morning greeted the 18 keen Nats who had assembled early for a climb up the mountain. A brisk pace was set by the leader, who was eager for everyone to reach the summit. Despite his cajoling, a great diversity of life was observed. This included the mountain pepper, *Tasmannia insipida* in fruit and lots of fungi, especially wood-ear fungi *Auricularia*. Other highlights included a beautiful scaly foot, a tiny ornate praying mantis walking on a moss bed and a large and striking jewel beetle. Butterflies included pale green triangles and an admiral. Everyone reached the summit and enjoyed the spectacular views. Lunch was then shared with eastern crevice skinks, *Egernia mcpheei* and participants were entertained



Thalloid liverwort Photo: May-Le Ng



Eastern Crevice Skink *Egernia mcpheei* Photo: Peter Woodall

by a hawking grey goshawk and a soaring wedge-tailed eagle. An excellent day. *Barney Hines*

March 20th Cedar Creek, Ferny Grove

Led by Marion Goward of Men of the Trees. Our group of some 20 people, including children, comprised Club members, Men of the Trees members and seven people through our Meetup site. We started our walk, with a newer 2012 planting of dry scrub species now growing beautifully, along the road at Arbor St Park, Ferny Grove. From there we meandered through plantings done from the late 1990s onwards along the creek merging with remnant trees along the end of Cedar Creek - a little hidden treasure. There were some lovely spots of deep forest, though open sunny spots were unfortunately also colonised by invasive species of plants. Our explorations of the plants along the way led us through a culvert to near the junction with Kedron Brook in Bob Cassimaty Park where magnificient old *Waterhousea floribunda* (aka *Syzygium floribundum*) trees were enjoyed. Our walk ended here with the enhancement plantings now being done to an original Queensland Rail offset project to compensate for tree loss for the new railway station. Many thanks to Marion and Men of the Trees volunteers.

Helen Schwencke

Easter March 25-28 Sundown National Park

Forty Nats, including nine children, attended this wonderful camp based at the Broadwater Camping Area. We were very fortunate to have Peter and Lynette Haselgrove as our leaders. Peter was the original ranger at the park and has an exceptional knowledge of the flora and fauna which he was very willing to share. Sundown NP has a variety of habitats which support great diversity. Hard, iron-bark covered hills lead down to slopes of *Callitris*. Gorges cutting through the hills contain dry rainforest elements and the main river valley is lined with bottlebrushes Melaleuca viminalis, river sheoaks Casuarina cunninghamiana and tall river red gums Eucalpytus camaldulensis. The park is renowned for its birds and we were not disappointed. Woodland and traprock species were the highlights. Chief of these were the turquoise parrots (photo:front page) that were plentiful along the grassy flats downstream of the camp. Other highlights included crested shrike-tits, brown treecreepers, hooded robins, jacky winters residing in camp, whitebrowed and grey crowned babblers, 3 species of rosella, diamond firetails and a diversity of honeyeaters including white-eared and vellow-tufted. Rainforest birds were also observed including wonga pigeons and satin bowerbirds. Conditions were dry and the river was

Yellow-faced whip snake Photo: May-Le Ng

not flowing. This affected the plants, however some were still observed flowering including the lovely *Isotoma anethifolia*. Figs *Ficus*



ailed Emperor Polyura pyrrhus Photo: Loith Woodall



Crimson Tiger Moth Spilosma curvata Photo Peter Woodall

platypoda were fruiting in the gorges as well as Notelaea microcarpa and Psydrax odorata. The ridges were dominated by the silver leaf ironbark E. melanophloia with its interesting canopy of 'juvenile' leaves. A most excellent trip and we look forward to returning here again.

Barney Hines (co-leader)

April 9th Wellington Point - Marine Excursion

Saturday turned out to be a glorious, calm, sunny day thus providing us with the very best conditions to visit a sandy-muddy intertidal area. About 50 club members and guests took part in the excursion; at least 10 were keen, young naturalists. From the very beginning of the walk, the participants displayed an intense interest in the plants and animals of the tidal flats, so the pace was necessarily slow and most of us never reached King Island with its small stand of mangroves. It was, in fact, a typical QNC trip!

Although the sheltered, sandy-muddy bays do not have the same range of habitats as exposed, rocky shores and therefore, do not have such a high species diversity as those areas, they nevertheless hold a great attraction for



Mermaids fan *Udotea argentea*



Two-toned Fiddler Crab Uca vomeris

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Algal Sponge - Psammoclema sp.sponge Cladophoropsis vaucheriaeformis Algae

the keen naturalist. The main vegetation of the shallow waters here was not algae but sea-grass, a marine flowering plant; we were able to identify four of the seven species reported from Moreton Bay. The dominant fauna were crabs, snails and sponges. We were lucky enough to see several species of fiddler crabs, sentinel crabs and mangrove crabs, thanks largely to a very enthusiastic young naturalist. The most interesting sponge seen was the algal sponge, a symbiotic association between the sponge *Psammoclema* sp. and the alga *Cladophoropsis vaucheriaeformis*. We also saw moon snail egg collars, mud whelks, the beautiful rose-petal bubble shell (*Hydatina physis*) and the blue-speckled nudibranch (*Dendrodoris krusensternii*). The molluscan find of the day, however, has to go to Barney Hines with his blue-lined octopus (*Hapalochlaena fasciata*).

A complete list of the plants and animals encountered on this short excursion to Wellington Point has not yet been compiled and there are still considerable problems identifying many of the groups. To date, the organisms identified are: 1 cyanobacterium, 6 algae, 7 sponges, 2 sea anemones, 3 polychaete worms, 16 molluscs, 6 crustaceans, 1 spoonworm, 1 sea star, 1 sea cucumber, 1 ascidian, 2 fish and 12 birds.

Myriam Preker

Vale Dr. Cameron Peter McPhee PhD MSc B(Agr)Sc - Scholar and Gentleman

Dr. Cam McPhee passed away on 28 March 2016, after being badly injured whilst surfing with his family at Noosa. Cam was aged 77 years.

Cam and his wife Faseny joined QNC in 2006. Cam was Vice-President of the QNC in 2009 and 2010, President in 2011 and then Past-President in 2012 (Faseny was on Council from 2009 to 2011). Cam's Presidential Address "Domestication of Animals: an example from Red-claw Crayfish" was published in The Queensland Naturalist December 2012. Cam and Faseny attended many QNC excursions and had very good botanical knowledge.

Cam was a scientist and adventurer. He worked as Principal Scientist for Queensland DPI, becoming a world renowned geneticist and pioneering animal scientist, for 'all creatures great and small', a leading innovator in improvements to domestic animal stocks via invitro fertilisation. Cam's adventurous spirit from a young age is evident with exploits such as driving a beaten up 4WD to Birdsville (hand brake only), driving all the way to the Cape, paddling a canoe to Stradbroke, riding a bike to the Darling Downs and leading a mile long queue of cars through a swollen creek in the 1974 floods in outback Queensland. Cam's attitude to any challenge was a quiet chuckle and a get on with it spirit.

Cam was a keen bushwalker, camper and gardener. He was a stalwart in caring for nature, belonging to both Nosworthy Park Bushcare group and Creekcare. Cam was passionate about being on the water, having both built and sailed boats. Cam was super fit and healthy and would walk for miles every day. We remember him for his thoughtful and quietly efficient disposition. Most importantly Cam was a good bloke, we all appreciated his enthusiasm and sense of humour and he will be greatly missed.



Welcome to New Members:

Mr Thor and Mrs Bec Andersen, North Tamborine; Ms Emma Scragg and Mr Gilbert Louttit, Auchenflower; Dr Julie Dean, Mr Keith Armstrong and Kai Armstrong, Bardon; Michael Evans & Mikael Almond, New Farm; Mrs Jenny Hocking, Stanthorpe; Mr Richard Maguire, Boondall; Mr Stacey McLean, Tarragindi; Mrs Fran Quinn, Brisbane.

We hope you have a long and happy association with the club.



Library & Facebook

Mrs Leith Woodall

The club's Facebook page is open to the public and can be found at <u>QNC Facebook Page</u> **QNC Library**

The club has a small library for members. The library is available at our general meetings. Books may be borrowed for one month. The library catalogue is available on the club website (QNC_LibraryCatalogue.pdf). We receive a number of journals and newsletters which are not kept indefinitely. Recently received issues are displayed at the meetings. There is a coloured dot on each item indicating if it can be borrowed or not. The dot code is:

Red dot - the item is on display only and cannot be borrowed.

Yellow dot - the item can be borrowed but must be returned at the following meeting.

Green dot - the item can be taken and need not be returned.

Two new books (reviewed below) recently added to the library:-*The Biggest Estate on Earth* by Bill Gammage *John Gould's Extinct and Endangered Mammals of Australia* by Fred Ford

BOOK REVIEW by Leith Woodall

John Gould's Extinct & Endangered Mammals of Australia by Fred Ford National Library of Australia, 2014, ISBN: 9780642278616 RRP: \$49.99

John Gould's *The Mammals of Australia*, 1863 may not be as well known as his *The Birds of Australia*, but it is an invaluable source of information on the mammals of Australia at the time of early European settlement.

Zoologist, Fred Ford, has taken the work of Gould and looked at those mammals illustrated by Gould, which are now extinct or endangered. The book covers about 46 species and of these, 16 have gone extinct. There might appear to be some surprising absences such as the Mahogany Glider or Mountain Pygmy Possum, but these mammals were not known to Gould.

While Gould foreshadowed the demise of the Thylacine and was not optimistic about the survival of the Koala, he did not foresee the detrimental impact introduced animals and habitat change would have on many of the small mammals he painted.

Overall, this book is worth reading. It provides an historical look at the extinct and endangered species, giving a fascinating feel for early European settlers and their attitudes to the wildlife. It also looks at the current situation including some of the recovery programs that have been attempted. It is well illustrated with John Gould's paintings of the mammals and scenery from his time in Australia.

BOOK REVIEW by Peter Haselgrove

The Biggest Estate on Earth - How Aborigines made Australia by Bill Gammage. 2012.

Allen & Unwin, Crows Nest, New South Wales.

434 pp. ISBN 978 1 74331 1325. RRP appr \$40 Softcover, \$50 Hardcover.

In a detailed and extensively researched book Professor Bill Gammage explains the landscape vegetation encountered by early explorers and settlers when they arrived in Australia. They were amazed to find large areas of open grassland with few trees, with patches or ribbons of thick country separating them, resembling "gentlemen's parks" in England. The Aborigines used these areas as hunting grounds and areas for harvesting yams and native grains. In western Victoria systems of canals had been dug and elaborate fish trap constructed along the Murray-Darling system. In the arid interior, dams and wells had been constructed.

Professor Gammage includes over 1500 books and articles in his bibliography and these are only a selection of those he read. He also travelled across much of the country looking at the evidence first hand. He refers to paintings and surveyors' maps made at the time of settlement, comparing them with the present landscape.

Because most of his evidence is written rather than anecdotal and comes from the pens of people who were present at the time, he makes a very good argument for an Australia that was not "natural" in 1788 but a product of careful management by the people already here.

The book won the Prime Minister's Literary Award for Australian History 2012 and numerous other awards. For an insight into Australia's natural history it is an essential read.

Exhibits

Exhibits for general meetings may be in the form of specimens, books, digital images etc. If you take an exhibit to a meeting, please think about also providing a *small piece of written text* to accompany it. Your natural history observations can then be shared with all members via:-

- The club website email text and photos to web@qnc.org.au
- Our Facebook page contact Leith for help at facebook@qnc.org.au
- ➤ In the QNC News email text and photos to news@qnc.org.au

This variety of formats allows all members, including non-Brisbane members, to share their experiences.

March Exhibits

- ❖ Peter Woodall − several photographic images from Mt Mitchell excursion: Flowers: Golden Everlasting Xerochrysum bracteatum (subspecies Mt Merino); Native Leek Bulbine vagans; Fruits of Native Frangipani Hymenosporum flavum and Lilly Pilly Acmena smithii; Raspberry Sawfly Philomastix sp guarding the eggs it has laid under a raspberry leaf; Longicorn Beetle and Weevil (not identified yet); Regal Jewel Beetle Calodema regale (Photo); Hyaline Semi-slug Mysticarion hyalinus; Eastern Crevice Skink Egernia mcpheei.
 - ❖ Leith Woodall carpet snake skin from her garden.
- ❖ Alan Cribb *Sterculia quadrifida* (Peanut Tree): dried fruit and the edible, peanut-flavoured seeds.
- Ruth Thomson A large dark mosquito, *Toxorhynchites speciosus* with a characteristic recurved proboscis that feeds only on plant sap and nectar. The very large larvae are effective predators of other mosquito larvae so are useful mosquitoes to have around.



April Exhibits

Bruce Rasmussen - Found at Bowra Station, at Cunnamulla in semi-arid zone a small skull with paper thin plates not joined up therefore thought to be a juvenile euro, *Macropus robustus*, probably red variety because of area in which collected.

What's On!

Australian Native Plants Sale Grovely TAFE Saturday 7 May 2016

A sale of Australian Native Plants will be held at Grovely TAFE on 7 May from 9am to 3pm. Grovely TAFE has a free parking area off Woking St, via Casey St. The sale is being hosted by Native Plants Queensland, the trading name for Society for Growing Australian Plants.

There will be a huge variety of native plants for all garden situations; favourites, unusual or rare and many are not available in commercial nurseries. Sizes are from tubes to mature plants.

Expert advice as well as information, books, brochures and refreshments are also available.

Coastal Raptor Nests in Redland City 7 May 2016

Citizen Science Workshop Saturday at Redlands IndigiScapes Centre. Contact 3824 8611 or email indigiscapes@redland.qld.gov.au

Queensland Ornithological Conference 2016

BirdLife Southern Queensland and Birds Queensland are hosting the 2016 Queensland Ornithological Conference at the University of Queensland, St Lucia on Saturday, 9 July 2016.

To register for the 2016 conference and take advantage of the early bird fee visit <u>tinyurl.com/ndl24ap</u> or print off an **application** and post it to: Queensland Ornithological Conference

c/- P O Box 3784 South Brisbane BC Qld 4101

THECA Meeting www.theca.asn.au

General meetings are usually held at The Hut, 47 Fleming Road, Chapel Hill, on the fourth Wednesday of each month from February to November at 7:00pm. (UBD 177 P2). See the website for information on Events.

Queensland Herbarium Seminar FM Bailey Room, at 12 Noon www.qld.gov.au

The Herbarium hosts free public seminars at the Mt Coot-tha Botanic Gardens from noon until 1pm in the second week of the month (February to November) - FM Bailey conference room in the Herbarium building. You don't need to register, just turn up on the day.

9 May CSI and BRI: Ecological Crime Scene Investigations Dr Gordon Guymer, Ralph Dowling, Tim Ryan, Hans Dillewaard, Dr Teresa Eyre, Queensland Herbarium, DSIT

13 June Variability in traditional and acoustic measures of ecological condition David Tucker, Queensland University of Technology

Forum 2016 Barriers to Biodiversity Conservation

at Queensland Centre for Advanced Technologies (QCAT), Pullenvale on Saturday 15 October 2016 Presented by The Hut Environmental and Community Association Inc (THECA)

Keynote speakers:Don Sands, Honorary Research Fellow, CSIRO and Jane Hutchinson, Tasmanian Land Conservancy, Tasmanian of the Year

Please contact THECA ASAP if you are interested in making a presentation. Proposals (up to 500 words) are due 9 May 2016. Visit www.theca.asn.au or phone (07) 3878 5088 or email info@theca.asn.au. Registration forms will be available in July 2016.

Notices

Calendar 2017

Sheryl Backhouse is again creating the club calendar for 2017 and would very much like your photos in high resolution. Photos need to be in "landscape" format. Don't worry if they are not quite perfect in some aspects (perhaps Sheryl can doctor them) as long as the main subject is sharp.

Include details of what the photo is and if it was taken at a Nats outing, then details of this too.

Phone Sheryl 07 3289 4198 or send your photos to sheryl.backhouse@bigpond.com

QNC Queensland Natural History Award

Nominations are being called for this annual award. Information and nomination forms may be obtained by emailing president@qnc.org.au or by writing to the Secretary. Closing date for lodgement with the Secretary is 31August 2016. Any nominations carried over from the previous two years may be updated by the closing date

And if you have a nomination for 2017, please put it forward now. To learn more about this award see the Guidelines and Rules at www.gnc.org.au/ONHA/qnha.htm

Your QNC News by post or email

Just a reminder that you can elect to receive this newsletter as a black and white printed copy by post or as a colour PDF by email. To change your preference at any time please email the News editor at news@qnc.org.au.

Bush Heritage looking for volunteers

Volunteer opportunities exist for 2016 at Eurardy Station Reserve and Charles Darwin Reserve - two of Bush Heritage's beautiful reserves in the rangelands, Western Australia.

Information will be out soon about Hamelin Station Reserve (in WA's Shark Bay).

There is also a list of volunteer opportunities for 2016 for the stunning iconic Boolcoomatta Station Reserve in South Australia.

For further details contact Jo Axford, Community Engagement West, Bush Heritage Australia Email: joanna.axford@bushheritage.org.au

Skilled volunteer

Carnarvon Reserve in Central Qld is desperately seeking a qualified plumber/gas fitter for their cottage renovation project. If you have the skills, a current license and would be interested in spending a week in the bush, contact Leanne Hales for more details: lhales@bushheritage.org.au, phone 07 4096 6893 or mobile 0458 001 623.

Publications for Sale

There are many publications available from the Club at the front desk at General Meetings, including new books such as the *Rangers Guide to Plants of the Glasshouse Mountains* which costs \$20 and *Butterflies of SE Queensland* by Trevor Ford costing \$8.00. QNC cards are available for \$2.00 each. Other publications include:

Rocks and Landscapes of the Gold Coast hinterland 3rd edition (new) – Warwick Willmott \$18.00

Butterfly Host Plants of SE Qld and northern NSW 3rd edition – John Moss \$10.00

A Brisbane Bushland: the history and natural history of Enoggera Reservoir and its environs \$12.00

Seaweeds of Old – Alan Cribb \$12.00

Landscapes of the National Parks of Central Qld – Warwick Willmott \$18.00

Rocks and Landscapes of National Parks of Nth Qld – Warwick Willmott \$18.00

Common Wildflowers of Girraween and Bald National Parks – Peter & Leith Woodall \$5.00

Create More Butterflies – Frank Jordan and Helen Schwencke \$20.00

Fungi out West – Chinchilla Naturalists Club \$20.00

QNC cards (no text) - \$2 each, envelope included, selection of images.

Compilation of Quids 1-18 1994-2008 \$5.00

CD's - Collection of 285 calls of Australian Birds - 4 discs by Helen Horton \$20.00

85 Bird calls of SE Qld (1 disc) by Helen Horton \$5.00

Old Naturalist - Back Issues \$1.00 to members.

Centenary Issue Qld Naturalists \$5.00

BOOK REVIEW by Glenn Leiper

After an almost ten year labour of love, many thousands of kilometers in research and field visits, and numerous drafts, authors John Moss and Ross Kendall have delivered the eagerly anticipated "The Mistletoes of Subtropical Queensland, New South Wales and Victoria".

And what a book it is ... meticulous in detail, colourful in presentation, and easily readable in text and layout. It ticks all the boxes.

Coverage of all species in the region, from Rockhampton to Victoria ... tick!

Easy species identification ... tick!

Lots of supporting information for each species, including the butterflies & moths using them as hosts ... tick! Extensive general mistletoe information ... tick!

Lots of supporting anecdotes and interesting information ... tick!

Excellent clear photos ... tick!

Distribution maps for each species ... tick!

An excellent cover that stands out (paintings by Lois Hughes) ... tick!

Clear uncluttered line drawings ... tick!

Additionally, it's well designed, effectively organised, and the text is clear and concise, yet appropriately descriptive where needed. But what would you expect from an author who is a retired medical practitioner, has published many entomological and botanical papers and articles, has delivered countless talks to community groups, and has a passion for a wide range of natural history areas (John), and an author who has guided the growth of the Butterfly and Other Invertebrates Club (Inc) for nine years as President, has developed an incredible knowledge of butterfly breeding through his hobby/business post-"retirement", has developed a passion for photography, and is a retired secondary school teacher (Ross)?

At 140 pages in B5 size, it's comfortable to carry as a field guide, yet contains extensive and comprehensive coverage of the 51 mistletoe species (including subspecies) and closely related plants. Not a fraction of a page has been wasted, with the authors maximizing all available space, packing it with either photos, drawings or text - a feature I greatly admire! Nothing is more frustrating than opening a new book and finding a large percentage of the book has blank space! The authors have endeavoured to ensure that not a chance is missed to deliver concise information and tremendous supporting colour photos at every opportunity. (There are nearly 230 colour photos by the way.)

The authors have provided an interesting and comprehensive coverage of mistletoes and their ecology, including their structure, their diversity and adaptations, all available information on their hosting of butterfly and moth larva, and also some revealing explanatory information on the oft repeated fallacy of mistletoes killing their host trees, and much more. They explain the differences between the two main mistletoe families, Loranthaceae and Viscaceae, and this provides the scaffolding for the book's organization, so that closely related species are clustered together in the book, as well as similar species being referred to in each relevant species' description.

Each species' coverage includes a distribution map, a detailed description of its attachment method to the host, its growth habit, its foliage, flowers and fruit, its habitat, and any butterflies and moths that use it as a host, any other interesting information, and photos that in most cases includes the plant itself, its foliage, flowers and fruit. There is a glossary, taxonomic lists of all mistletoes in the book as well as butterflies and moths mentioned, and a detailed reference list. Many references are also made throughout the book to scientific papers and references, as well as relevant discoveries and observations by people in the field. All of this information provides not only a detailed coverage of the subject, but also an interesting personalized account that reveals a deep passion for mistletoes by the authors.

This is a book that is a must for those interested in botany and entomology, or for anyone with an interest in learning more about the east coast's biodiversity, and of course for anyone wanting to identify those much maligned but fascinating mistletoes. I highly recommend it. The ten year wait was worth it!

Websites of Interest

https://www.facebook.com/ngnaturalhistory/

http://www.northerngulfbiodiversity.com/

http://www.nqnat.org/

www.abc.net.au/the-magical-world-of-australias-hidden-fungi

http://www.sgapqld.org.au/information-and-publications/book-reviews2/195-a-field-guide-to-

plants-of-the-channel-country-western-queensland