

QNC NEWS

Newsletter of The QUEENSLAND NATURALISTS' CLUB INC.

No 358 September-October 2021

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CONTENTS

Council News	P.2
General Meetings, upcoming speakers, and meeting reports	P.3
Excursions and upcoming events	P.6
Excursion Reports	P.10
Items of Interest - including Exhibits from general meetings	P.11
Subscription Form	P.14

PROGRAMME

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

September 20 Peter Woodall on iNaturalist and the Calendar Photos display.

October 18 The CT White lecture - Speaker - Dr Geoff Monteith Topic - Exploring the Mountain-Top

Insects of Qld Wet Tropical Region

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

Sept 3-6 Barakula State Forest, via Chinchilla Sept 30-Oct 4 Maybe, via Tenterfield – Cancelled

Sept 26 Belmont Bushland Reserve
Oct 24 (Towards) Mt Bell, Teviot Gap

CLUB CONTACT DETAILS

Mailing address: PO Box 5663, West End, QLD 4101

President: Mr Ron Carr Ph:0421 382 500 president@qnc.org.au Secretary: Ms Judy Haines Ph: 0402 236 359 secretary@qnc.org.au Treasurer: Mr Mike Anderson Ph: 07 3263 4502 treasurer@qnc.org.au Excursion Secretary: Mr Barney Hines Ph: 07 3720 9414 excursion@qnc.org.au **QNC News Editor:** Ph: 0427 369 730 Dr Annette Neill news@qnc.org.au

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 titbits 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/QNC LibraryCatalogue.pdf

Subscription Reminder

This is a reminder that Subscriptions for 2021-22 were due on 1 July 2021. Options for payment are shown on the last page of the QNC News. If you are not sure about the currency of your subscription, you can check with the Treasurer. Any members not financial for 2020/21 have automatically been removed from the mailing lists for QNC News and the Queensland Naturalists' Journal as from 31 December 2020.

Latest on COVID-19

Please see Roadmap to easing restrictions for the latest information

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
- In SE Qld LGA's restrictions are changing regularly check the website. As at 18 August there is no limit for people gathering in public spaces away from SE Qld.

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 20 September 2021

Speaker: Peter Woodall **Topic:** iNaturalist demonstration

Following the photographic theme there will be a presentation/demonstration by Peter Woodall on iNaturalist. Some members will be familiar with this facility already and regularly uploading photographs to it. Once uploaded other users can provide initial identifications if none has been offered or verify or challenge original identifications. The facility contains a vast collection of photographs with locations and possibly other data recorded which becomes available to researchers and interested individuals. Peter has recently established a "project" for the QNC within the iNaturalist webspace. This will enable postings by club members to be grouped and shared more easily. Peter will explain and demonstrate the facilities that are available on the iNaturalist platform and how to use them.

Calendar Photo competition (See below)

We will also be displaying and selecting the photographic entries vying for inclusion in the QNC 2022 calendar.

Monday 18 October 2021 The CT White lecture

Speaker: Dr Geoff Monteith **Topic:** Exploring the Mountain-Top Insects of Qld Wet Tropical Region
To quote an ABC article from October last year Geoff, "is one of our most celebrated scientists having had some 250 species named after him, a feat that has landed him on a list of the world's top 10 most commemorated scientists, which includes Charles Darwin." We are delighted to have Geoff agree to deliver this year's address.

QNC CALENDAR PHOTO COMPETITION

The QNC has run a wide range of day outings and camps during the year, and we would like to capture some of these activities in our annual calendar. To this end, we are asking members to again submit photos from QNC outings to the QNC Calendar Photo Competition for the 2022 Calendar. Photos can be from any QNC outing, regardless of when the outing occurred.

The competition rules are:

- 1. Photos must depict natural history and be taken in association with club activities.
- 2. Photos should be in JPG format and, where possible, in landscape orientation (there will be very limited space for photos in portrait orientation). QNC may crop entries submitted with other ratios for display in the calendar. Aspect ratio of 3:2 is desirable. PLEASE NOTE there is a "Suggested guidelines for submission of images" attached below.
- 3. Participants may submit up to 4 entries.
- 4. Photos should be submitted by email with supporting information including location and species to: photo@qnc.org.au OR sdoug7405@gmail.com.

- 5. Titles/captions are not necessary and will be at the club's discretion.
- 6. Photos will be printed to A4 size and displayed on the night of the September general meeting.
- 7. Members will vote on the aesthetic and natural history merit of the images at the September club meeting. We will create alternative electronic forms of voting for members, should general meetings not be permitted.
- 8. Entrants agree that the Club may use their photos for the 2022 calendar or in the Club newsletter, the QNC News.
- 9. The photographer will be credited, and copyright remains with the photographer.
- 10. Entries will be accepted until 5 PM on Monday 13th September 2021.
- 11. Council's decision about inclusions in the calendar is final.

Suggested guidelines for submission of images

Our aim is not to preclude anybody's participation here, but rather to aim to produce a quality product that might attract a larger audience. Therefore, these are guidelines to be aimed at, rather than prescriptive.

Below you will find some suggested guidelines for the submission of images for the QNC archive and its publications. They aim to make the work of getting these images up and onto the varied platforms a lot easier, and also with an aesthetic standard that will help promote the activities of the club. The key issue is image resolution. Most devices, including smart phones, now produce images that contain lots of megapixels. However, problems arise when images are cropped and/or enlarged. Consequently, the resolution of the image doesn't mean much without the size and type of the final product in mind. The standard resolution for photos to be printed is 350 dots per inch (dpi). This means that within 1inch (\sim 2.5cm) along one side of the image there should be 300 pixels (minimum). These are the requirements set by our printer. Consequently, a 6" x 4" print should be 1800 x 1200 pixels or 2.16 megapixels to assure the quality of finish required. We have provided below a table that summarises suggested file sizes for the various platforms used by the club. You will note we have set the minimum requirements for newsletter and Facebook at 2.1 megapixels to guarantee for some flexibility in uses we might put your creative output towards.

	Size in inches	Image Resolution	Size (Megapixels)
			(Cropped Image)
For Calendar	11" x 8"	3525 x 2475	~8.7
For Newsletter	4" x 6"	1800 x 1200	~2.1
For Facebook	4" x 6"	1800 x 1200	~2.1

Thanks, from the Calendar Team

MEETING REPORTS

<u>At the July meeting</u> Dr Ben Diggles spoke on Shellfish Reef restoration in Pumicestone Passage. "When generating 16 times more fish is not quite enough"

Ben started with the history of Moreton Bay which was formed 6,000 years ago at the last sea level rise. 2,000 years ago indigenous fire-stick farming caused some increased sedimentation and nutrients which increased productivity but after urbanization of the catchments by European settlement in the early 1800's excessive mud and nutrients were associated with outbreaks of mudworm infestation in oysters from 1895 followed in the 1960's by QX disease. This century Lyngbya algal blooms (due to acid sulphate soils) and major fish kills have become frequent in the Bay.

For thousands of years indigenous people had harvested Sydney Rock Oyster from the Bay (*Ninghy* means "plenty of oysters") and there was a thriving settler industry from the late 1800's with a peak of 1890 QNC News 358

4 Sep-Oct 2021

tonnes taken in 1895 after which the decline began until the last license was given up in 1947. By 1981 oysters were at 10% of their previous peak and now subtidal oyster beds are functionally extinct in SEQ. This is due to poor water quality with high levels of mud and resulting disease. It is also notable that oyster middens and intertidal oysters were removed for their lime content, used in building and roadmaking.

Ben showed several telling historic photos comparing areas of Moreton Bay to the present day clearly illustrating changed environments with sediment covered algal "turf" replacing clean rock thus preventing the attachment of oyster spat.

While presenting a grim picture, Ben pointed out the hopefulness of his observation that oyster larvae continue to recruit on remaining suitable surfaces.

As filter feeders oysters play a huge part in filtering sediment and pollutants thus reducing turbidity and toxicity of water as well as providing habitat and food for other marine animals, recycling nitrogen and sequestering carbon in their shells. They form an important part of the food chain by bentho-pelagic coupling, by turning solar energy and nutrients into food for higher organisms via consumption of photosynthesizing phytoplankton. Indeed, it has been shown that shellfish reefs recycle 283% more nitrogen than mud or sand banks and generate between 1300-10,000% more fish and crabs than mud banks. By contrast absence of bivalves reduces fish and crustacean numbers, allows unutilised nitrogen to facilitate algal and jellyfish blooms, reduces seagrass due to water turbidity and increases harmful microbials. This has already happened in Moreton Bay where major fish kills occurred in the Caboolture River in 2009 and 2019 and in Pumicestone Passage, jellyfish blooms in 2012 and algal blooms in 2019.

Progression to oxygen depleted or dead zones can result, and Ben described programs in other parts of the world to restore dead zones by increasing shellfish populations as a first priority e.g., Chesapeake Bay in USA. Shellfish reef restoration started in Australia in 2014 with formation of a National Shellfish Reef Restoration Network with projects in most states. There has been a groundswell of support from community groups, indigenous peoples, fisheries and conservation groups for a microproject trial in Pumicestone Passage in which shell substrates placed sub tidally resulted in massive recruitment of oysters (increasing with depth) and in 400-500% more invertebrates and thousands of fish embryos compared to intertidal areas. The following year these numbers increased further. In a citizen science project in 2016-2017 oysters were grown in Bribie Island canals for placement onto subtidal reefs. 30,000 oysters were produced for transfer by this means while monitoring of associates provided information on biodiversity. Due to a shortage of shell substrate, it was decided to recycle used oyster shells from food outlets, and these were sanitised and dried for 4 months before use. The first deployment in December 2017 involved placement of "reefs" of oyster shells and live oysters in Moreton Bay in cages, large biodegradable bags and open reefs. Nine months later each had become an artificial reef covered in biodiverse organisms and was associated with a threefold increase in fish in the habitat. A further stage took place in Dec 2018 with the use of besser block "fences" in a further site in Moreton Bay and a third stage in 2019 using a 30m square besser block structure. Sunshine Coast University performed pre- and post-monitoring of fish abundance and diversity at 6 monthly intervals. This showed that restoration of the 1-hectare site produced a 3.8 times increase in biodiversity and a 10.7 times increase in abundance of fish and a massive 16.4 times increase in the number of marketable fish, i.e. an increase of 1640%!

Suggestions for progress include terminating the moratorium on restoration in Moreton Bay, scaling up and supporting Ozfish Ltd who are doing a trial in Port of Brisbane this summer. More information is available at www.restorepumicestonepassage.org.au https://ozfish.org.au/projects/moreton-bay-shellfish-reef-restoration/ and https://www.shellfishrestoration.org.au

At the August meeting it was members night.

Colleen Foelz told us about the "Day of the Assassins", when an Assassin Bug (Red Tiger Assassin Bug) attacked a spectacular caterpillar (Painted Pine Moth).

Colleen showed us the amazing photographs she captured of the attack until the caterpillar abruptly disappeared, dropping to the ground, off the proboscis of the bug. After some internal ethical questioning Colleen picked up the caterpillar and replaced it on the tree and the attack continued. After an hour Colleen

returned to see and photograph the Assassin Bug, and curiously a wingless nymph of the same species, looking engorged while the caterpillar was a mere flattened shadow of its former self.

Doing some research around the *Personae dramatis* Colleen found that the bugs engorge successfully because they have accordion-like folds which allow them to expand. Researchers at UQ described the two types of venom used by Assassin Bugs under different circumstances. The venom used to catch prey for immobilisation and liquefaction before consuming is different from the venom produced when the creature is under attack when it delivers a venom which produces severe pain. Both venoms contain a mix of about 100 toxins!

A species of Assassin Bug, the Kissing Bug, transmits the bacteria (*Trypanosomi cruzi*) causing the South American form of schistosomiasis, called Chagas' disease. The Bug is a stealth nocturnal blood sucker, but the bacteria is transmitted through its faeces rather than the bite. In Mexico the same bugs have traditionally been eaten as an aphrodisiac and the faeces rubbed onto children's warts-with dire effects!

The Painted Pine Moth female is wingless and therefore lays eggs near where she hatches.

Sally Johnsen showed some beautiful vistas of Boodjamulla National Park and the *Pandanus aquaticus* lining Lawn Hill Creek. It was by the creek that she and Terry heard incessant calling and found a juvenile Brush Cuckoo being fed by Purple-crowned Fairywrens. Sally showed both still photos and a video of the juvenile cuckoo being fed and pointed out its habit of extending one wing as it was being fed and aggressively lunging at the diminutive foster parent. Researching the wing behaviour, Sally found another reference of similar single wing extension in the case of Brush Cuckoo being fed by Lovely Fairywrens and also a Singaporean reference where cuckoos were being fed by other small foster parent birds.

Vivian Sandoval Gomez found 21 collections of Australian stamps displaying insects with a total of 113 insect stamps and three collections displaying six spider stamps and 75 stamps displaying Lepidoptera.

The oldest collection was in 1976-77 featuring butterflies and the most recent was in 2020 featuring citizen science. More recent collections often employ novel techniques such as three-dimensional imaging of dragonflies, electron microscopy images and completely digital images.

Throughout her presentation, Vivian showed slides of some magnificent stamps and also directed us to physical displays of stamps which she had brought to the meeting.

Ruth Thomson gave some history of the Bush Stone-curlews which had lived for years around and in her garden and their breeding behaviours while showing close up photographs to illustrate her talk. She described a strange behaviour of picking up leaves in the bill and throwing them into a pile at the start of the breeding season. She also brought a specimen of the large glossy leaves and fruit from the *Planchonella eerwah* which has formed a tall tree in her garden.

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

Cancelation of the camp to "Maybe" Tenterfield

The camp to the property of Janet White and Neil Fordyce scheduled for 30th Sept to 4th October is being postponed until further notice due to the closure of the NSW border. "Maybe" next time.

September Friday 3rd to Monday 6th Camp - Barakula State Forest

Leaders: Peter & Lyn Haselgrove Phone: 0409 006 063 Enquiries to pely95@gmail.com

Please register at excursion@qnc.org.au with Barakula in the subject line. Please include names of all attendees and a contact number for COVID-19 contact tracing.

Barakula State Forest has areas of abundant wildflowers. The tracks throughout the forest are generally in very good condition. We may have a few local naturalists join us for the weekend which will enhance our knowledge considerably.

We will camp in an open area near the Forest Office. There are no facilities, but club toilets will be in place. You will need to bring all your own drinking water. Water for dishes, washing etc can be got from the nearby creek. During the pre-outing the ground was quite wet in places and there has been more rain since, so we are hoping for a good wildflower bloom.

Camp fees: \$2 per adult per night Club fees. It is preferred that you pay your fees in cash at the camp. People may stay in Chinchilla if they prefer which is about 40 km from our campsite.

Car-pooling will be necessary on days out in the forest. We suggest you fill up with fuel at Chinchilla.

Road directions: Soon after you leave Chinchilla heading north-west you will see Auburn Road on the right heading north and signs saying *Barakula 39km*. Just follow the big main roads signs and you will end up at the old forestry complex. Go through the gateway which is just at the end of the office complex and 100 m further across a culvert. On the left is the road to Dogwood Creek Camp and our camp is on the right almost opposite the sign. Turn onto a gravel track through pines into a large clearing.

Continued.......

QNC News 358 **7** Sep-Oct 2021

AN ADDED EXTRA: Frank Truscott, Chinchilla Naturalist Club, is happy to guide anyone who would like to stay a day or two after the 6th and do some more exploring. However, the camp toilets may have to be dismantled on Monday. People may decamp to Chinchilla if they prefer.







September Sunday 26th at 8.30am Belmont Bushland Reserve – Dry rainforest and open eucalypt forest

Leaders: Dick Copeman and Ron Carr Phone: 0439 728 992

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

Directions: Meet at the Reserve entrance at 132 Scrub Rd, Carindale, next to an electricity substation on the eastern side of Scrub Rd. Extra parking is available along the western side of Scrub Rd.

Belmont Bushland Reserve includes open eucalypt forest, along with one of Brisbane City's few remaining patches of dry rainforest, growing on red basalt soil on the southerly slope. The eucalypt forest has an interesting diversity of species, mirroring the mosaic of soil types, while the dry rainforest includes hoop pine, foambark, red kamala and wonga vine. Interesting and uncommon plants include Belmont Zieria (Zieria furfuracea subsp. gymnocarpa), Bell Fruit (Codonocarpus attenuatus) and Bastard Crow's Ash (Pentacera australis). Many plants should be in flower and butterflies and birds should be active. Powerful owls were seen on a previous Qnats excursion, and koalas and swamp wallabies may be seen also.





What to bring: Hat, water, morning tea, walking boots, and a walking stick if needed, as a small part of the walk will be off track with roots and rocks, but not steep.



October Sunday 24th Meet: 8:30 am (Towards) Mt Bell, Teviot Gap.

Leaders: Barney Hines (0420 351 801) and Tom Hall. Please register by emailing excursion@qnc.org.au and with Mt Bell in the subject line. Please include names of all attendees and a contact number for COVID-19 contact tracing.

In uncertain times with Covid-19 etc, I thought it would be good to head the club into uncertain directions. My bushwalking guide describes this area thus, "This is a confusing region. The difficulty is caused by a profusion of logging regrowth in the upper parts of Teviot Brook, overgrown logging roads, the absence of views due to the rainforest canopy, the precipitous nature of some terrain and the apparent erroneous marking of the location of Teviot Falls on virtually all maps". What better place to lead a club outing?

The aim of the outing will be to walk along an old forestry road that heads into the gloomy forest in the general direction of Mt Bell. This is described by my same guidebook as "an underrated peak". Whether we get there is totally uncertain and is not really material as there will be plenty to keep us busy.

The terrain we will be walking through is temperate rainforest on rich basaltic soils. It should be pleasantly cool within the forest as it will be well shaded and the whole walk will be at an elevation of about 800 metres or more. Most of the walk will be relatively flat, but as we approach the summit of Mt Bell the flatness will become very inclined. The top of Mt Bell has a sharp ecotone to Eucalypt forest. Hopefully we can get there and hopefully we can enjoy some views and see some butterflies summitting also.

One of the dominant species is the sassafras, *Doryphora sassafras*, a species which is typically found in rainforest further south. Note that this species is the family *Atherospermataceae* (roughly translating to mean "hairy or bristly fruit") and is no relation to the original sassafras of North America which is a laurel. It was easy enough to identify when it was flowering last winter. I don't think I will be able to identify it without the flowers when we visit in October, but I will be happy to point to a suitable candidate tree and make some pronouncements if people wish.

Neither of the leaders have yet ventured as far as Mt Bell. We have moseyed around the approaches and scaled nearby peaks. We will likely do a reccy to see if it is still there or if we prefer another nearby spot. And hopefully we will return to lead others astray.

Details: Please bring a hat, sufficient water, lunch and snacks for the day. There are no facilities nearby. There could be ticks and leeches. Note that the event may be cancelled if the weather is very wet. Please register and include your mobile phone number and the name of all attendees. The walk will be suitable for most, including families, so long as people stick somewhat together.

Directions: 8:30 am - Meet at the junction of Brett Road and Spring Creek Road (the latter also known as the Head Road). From Brisbane, travel southwest to Boonah. From Boonah, head south on the Boonah Rathdowney Road for about 14.5 km and then turn right into Carney's Creek Road. Follow this for 12 km before turning right again onto the Head Road. Follow the Head Road for 5.6 km. You will follow the Teviot valley until you start to climb the range. As you climb the range, you will see Teviot Falls on your right and Brett Road is a small laneway on your right that leads towards it. Total travel time from the Brisbane CBD is about 2 hours. When you get to Boonah you are about 50 minutes away.



Fallen flowers of the sassafras tree, Doryphora sassafras. Photo courtesy of Phillip Mikowski



Walking stick palm (Linospadix monostachya) in fruit, Teviot Gap. Photo courtesy of Phillip Mikowski

QNC News 358 9 Sep-Oct 2021

EXCURSION REPORTS

Saturday, 24 July 2021 King island, Wellington Point marine excursion

Leaders: Dr. Ian Lawn and Myriam Preker

King Island is a Regional Park located about one kilometre offshore from the tip of Wellington Point. The waters surrounding the island are part of the Moreton Bay Marine Park and a sand bar connects the island with the mainland at low tide allowing for easy access.

About 20 members and guests of the QNC explored the intertidal flats and seagrass meadows extending out from Wellington Point to the small stand of Grey Mangroves (*Avicennia marina*) surrounding King Island. Typical of a Queensland Naturalists' Club excursion, the pace was extremely slow and most of us never reached the actual island itself! The reward for the few that made it all the way out there was seeing the only live echinoderm encountered on the trip: the Vulgar Starfish (*Anthenea crassa*).

This Saturday turned out to not offer the best conditions for visiting a sandy-muddy area because the strong winds stirred up the sediment, which reduced the visibility in the shallow waters. Despite this, a respectable list of algae, plants and animals was compiled. Three of the seven species of sea-grasses reported from Moreton Bay were seen and identified: Halophila spinulosa, Halophila ovalis and *Zostera capricorni*. The most-abundant brown algae were Chain Float (*Sirophysalis trinodis*) and Sargassum sp? Unfortunately, it was not possible to identify the latter to species without a sample in hand.

The dominant invertebrate fauna consisted of sponges, bivalves, snails and crabs. Of the five Porifera identified, the Toxic Black Slimy Sponge (*lotrochota coccinea*) is worthy of note as it causes severe dermatitis if touched. The Algal Sponge *Psammoclema* sp + *Cladophoropsis vaucheriaeformis* (alga) is also noteworthy because the sponge and the green alga together form an interesting symbiotic association. The low visibility of the water prevented us from surveying the health of the coral colonies, as we had hoped to do, and this was also a contributing factor in our inability to locate the cerianthid Tube Anemone with its associated Anemone Horseshoe Worm(s), (*Phoronis australis*). Four cnidarians were recorded on this trip and three annelids. A very impressive list of molluscs has been posted to iNaturalist by the Woodalls.

Many crustaceans were encountered but, unfortunately, only a few were positively identified, as many scurried away too quickly while others remained firmly tucked in their burrows. The following crustaceans were identified: Yellow-striped Hermit (*Clibanarius taeniatus*); Sand Crab (*Portunus armatus*); Blue Mottled Swimmer Crab (*Thranita danae*); Giant Sentinel Crab (*Venitus latreillei*); as well as the "somewhat-fickle" Soldier Crab, (*Mictyris longicarpus*), a few of which emerged just as we returned to shore.

A number of chordates were encountered. These included several ascidians, two of which were identified as the White Rope Ascidian (*Eudistoma elongatum*) and Stripey-mouthed Sea Squirt (*Pyura gangelion*). Other chordates included: one fish, the Common Toadfish (*Tetractenos hamiltoni*); and ten species of birds, which were identified and listed by the Woodalls at https://ebird.org/checklist/S92356498

Thank you to all the participants for making this such an enjoyable day!

Photos from the day on following page.



Hairy Mussel (Trichomya hirsute)



Yellow-striped Hermit (Clibanarius taeniatus)



Lobate Brown Soft Coral (Cladiella sp)



Sand Crab (Portunus armatus)



Toxic Black Slimy Sponge (Iotrochota coccinea



White Hammer Oyster (Malleus albus)



Soldier Crab (Mictyris longicarpus)

ITEMS OF INTEREST

QUEENSLAND NATURAL HISTORY AWARD

If you know of anyone, professional or amateur, who has made a notable contribution to our knowledge and understanding of any aspect of the natural history of Queensland, do consider nominating them for the Queensland Natural History Award which our Club awards annually at the first meeting of the year to a suitable candidate. Please contact Judy Haines at secretary@qnc.org.au if you want to find out more and to request the relevant information and nomination documents. The closing date is usually the end of August, but this is not strictly adhered to so please let us know if you want to make a nomination.

THE QUEENSLAND HERBARIUM

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

https://www.qld.gov.au/environment/plants-animals/plants/herbarium/webinars-events

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

13 September 2021, 12–1 pm - Our National Parks – A History of Cooloola: Ron Turner and others

An historical account unlocked from archival files, memories, libraries and local historians.

11 October 2021, 12–1 pm - Monitoring changes in vegetation in Queensland's tropical savannas:

John Neldner, Queensland Herbarium

This seminar will discuss observed changes in woody and ground layers of north Queensland's tropical Eucalypt woodlands over 30 years.

THE SPRING NATIVE PLANTS MARKET IS BACK!

We are very pleased that we have been able to arrange a Plant Market to replace the aborted Mt Coot-tha Flower Show and Plant Market. There will be a huge range of native plants to suit any garden, plus many highly knowledgeable people to answer all your native plant questions. This is a covid-safe event, open to all. https://npq.org.au/event-4351446

Location: Belmont Rifle Range, 1485 Old Cleveland Road, Belmont, Qld 4153

Please note if you are travelling east on Old Cleveland Road, you will need to drive past the entrance and then do a U-turn.

We have more space than normal so it should be possible for you to bring a small trolley as long as you are careful with it.

If you are not an NPQ member please subscribe here to receive a plant list prior to the event.

ODONATA PHOTOS FOR FIELD BROCHURES

Still time to contribute

As you would be aware, Council and a number of members, in collaboration with the Queensland Museum, are working towards producing a field book for budding naturalists to learn about dragonflies and damselflies. This publication aims to encourage younger naturalists in the activities of the Club. The project continues and if you would like to contribute photographs, please email them to sdoug7405@gmail.com with the following information:

- Photographer's name
- Species if you know it (not essential)
- Date and time of observation
- Location description and, if possible, coordinates and datum
- Habitat type
- Any other notes from your observation

The photos must be of sufficient quality for printing and should allow identification of the species. Photographers agree that the Club may use their photos for the project. QNC may crop photos for display, but copyright remains with the photographer and all photos used will be credited.

We already have good quality photos of the vast majority of species that we need (thanks to those members who have already submitted images). However, there are still a few gaps and we would be particularly keen to receive the following species and genders listed below.

We aim to finish the collecting stage of the project by the end of next summer so there is a lot of time to get out there and hunt down the perfect shot.

Family Aeshnidae

Photos of any of the following darner species, especially females.

Unicorn Darner, Austroaeschna unicornis

Forest Darner, Austroaeschna pulchra

Sigma Darner, Austroaeschna sigma

Family Gomphidae

Twinspot Hunter, Austroepigomphus praeruptus

Jade Hunter, Austrogomphus ochraceus, female

Stout Vicetail, Hemigomphus heteroclytus, female

Family Libellulidae

Red Swampdrgon, Agrionoptera insignis, female

Black-faced Percher, Diplacodes melanopsis, female

Common Archtail, Nannophlebia risi, female

Green Skimmer, Orthetrum serapia

Dune Glider, Tramea eurybia, female

Narrow-lobed Glider, Tramea stenoloba, female

Short-tailed Duskdarter, Zyxomma elgneri, male

Family Petaluridae

Coastal Petaltail, Petalura litorea, female

Family Synthemistidae

Black Tigertail, Eusynthemis nigra, female

Family Agriolestidae

Flame Flatwing, Austroargiolestes amabilis

Golden Flatwing, Austroargiolestes chrysoides

Springs Flatwing, Griseargiolestes fontanus, female

Family Coenagrionidae

Gold-fronted Riverdamsel, Pseudagrion aureofrons, female

Blue Riverdamsel, Pseudagrion microcephalum, female

Family Isostictidae

Southern Pinfly, Neosticta canescens, female

Family Lestoideidae

Whitewater Rockmaster, Diphlebia lestoides, female

Arrowhead Rockmaster, Diphlebia nymphoides, female

Family Synlestidae

Bronze Needle, Synlestes weyersii

Thanks

From the Odonata team.

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QNC News 358 14 Sep-Oct 2021