

Society for Growing Australian Plants Cairns Branch

NEWSLETTER

June 2019

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The rare Megahertzia amplexicaulis in cultivation at Bayview Heights. Photo by Anthony Lagois via Facebook.

JUNE EXCURSION

June's excursion will take us to the private garden of Anthony Lagois and Brian Moran. Situated on the Cairns hillslopes in Bayview Heights, the garden contains a unique and expanding collection of native rainforest plants. Many things grown here are rarely seen in cultivation.


This month's excursion will commence a little earlier than usual - 10 a.m. See the last page for directions and parking instructions.

9 June - World Swallowtail Day

The British "Swallowtail and Birdwing Butterfly Trust" have declared 9 June 2019 to be the World Swallowtail Day. This British conservation initiative provides an opportunity to discuss some of our native swallowtail butterflies, and the native plants they eat.

Britain's swallowtail butterfly, *Papilio machaon* is the island nation's largest butterfly. It is a rare species, restricted to the county of Norfolk, where its caterpillars feed on milk parsley (*Peucedanum palustrae*, Apiaceae). It is a member of the family Papilionidae, a largely tropical group that includes some of the world's largest and most spectacular butterflies.



Papilio machaon subsp. britannicus.
Image by "LittleHow" 

In Australia, according to the Australian Faunal Directory, the Papilionidae family is represented by 21 species (broken down into innumerable subspecies), including well known animals such as the Orchard Swallowtail (*Papilio aegeus*), the spectacular Ulysses Swallowtail (*Papilio ulysses*) and Australia's largest butterfly, the Cairns Birdwing (*Ornithoptera euphorion*). Following a precedent set by Linnaeus, all three butterflies bear the name of figures from ancient Greek mythology: Machaon was a son of Asclepius, the god of medicine; Aegeus, for whom the Aegean Sea was named, was a king of Athens and father of Theseus, slayer of the Minotaur; Ulysses was an heroic king and warrior and the protagonist in Homer's Odyssey; and Euphorion was the son of Achilles and Helen of Troy.

Orchard Swallowtail

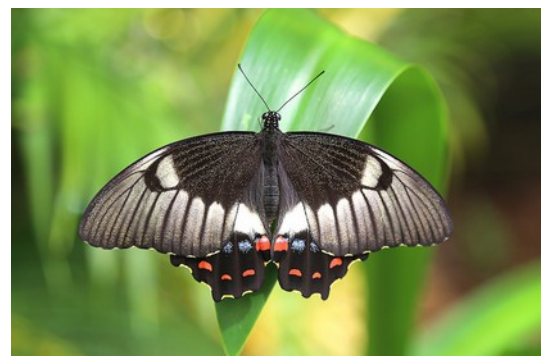



The larva of the Orchard Swallowtail, cleverly camouflaged as a bird poo.
Image by Peter Chew,
www.brisbaneinsects.com

In our garden, *Papilio aegeus* seems to be the most common of the local swallowtail butterflies. We often catch its larvae feeding on our citrus trees. Fortunately, they've never been present in sufficient quantities to warrant control. In their early development, the caterpillars look like a bird dropping. Later stages of development take on a green patterned coloration.

Wikipedia reports that the larvae feed on a broad range of

native plants from the family Rutaceae, including *Boronia*, native *Citrus*, *Clausena*, *Dinosperma*, *Eriostemon*, *Flindersia*, *Geijera*, *Halfordia*, *Leionema*, *Micromelum*, *Philothea*, *Zanthoxylum* and *Zieria*.



Female Orchard Swallowtail. Image by "Summerdrought" 

Ulysses Swallowtail

One of the ornaments of the tropics, the gorgeous *Papilio ulysses* occurs from eastern Indonesia, through Papua New Guinea and the Solomons, and northern Queensland as far south as Mackay. The iridescent electric blue of the upper wing surface is created not by pigments, but by the microscopic structure of the wing scales.

Famously, the larvae of *Papilio ulysses* feed on the Pink Euodia, *Melicope elleryana*, apparently preferring small trees 2-4 m tall. However, other foodplants are recorded (all members of the Rutaceae family), including *Melicope rubra*, *M. vitiflora*, *M. bonwickii*, *Halfordia kendack*, *Geijera salicifolia* and native and introduced *Citrus*.



Caterpillar of the Ulysses Swallowtail.

Cairns Birdwing

Australia's largest endemic butterfly is the Cairns Birdwing, *Ornithoptera euphorion*. Priam's Birdwing, *Ornithoptera priamus*, is larger but also found in New Guinea. Males of the species have black wings with flashes of iridescent green and yellow. Females lack the green colouration, but are larger, with wingspans reaching 15 cm. The genus *Ornithoptera*, which includes the world's largest butterfly, occurs from Indonesia to the Philippines and Australia, with a centre of diversity in Papua New Guinea.

Older publications place the species in the genus *Troides*: this name is no longer applied to Australian species.



Aristolochia acuminata

All birdwing larvae feed on vines of the genus *Aristolochia*, the Dutchman's pipe. The females land on the leaves of vines, 'tasting' them with chemical receptors on their feet. If an *Aristolochia* vine is discovered, they will lay there eggs there. Native species reported to be utilised include *A. australopithecurus*, *A. thozetii*, *A. tagala*, *A. pubera*, *A. sparusifolia*, and *A. deltantha*. Females will also lay their eggs on the exotic species, *Aristolochia elegans*. Unfortunately this vine is toxic, and the larvae die soon after hatching out. For this reason, planting of exotic *Aristolochias* is discouraged.

The caterpillars are enormous, brown-black in colour and covered in stubby spines. If disturbed, they evert a smelly, bright red fork-shaped organ from their rear. The offensive odour of this "osmoterium" discourages predation. If they are eaten, it's likely to only happen once, as the tissue of the caterpillars contains toxins picked up from the vines on which they feed.

Sunday 9 June is World Swallowtail Day. Help conserve the magnificent swallowtail butterflies of the Wet Tropics by planting their food plants and minimising, or if possible completely avoiding, use of insecticides.



Larva of Cairns Birdwing, feeding on *Aristolochia acuminata*

AMORPHOPHALLUS - CAMOUFLAGUED OR JUST PRETTY?

This month's "Native Plants Queensland" magazine includes an article by Garry Sankowsky about tropical bulbs, including *Amorphophallus*. Australia has two native *Amorphophallus*, *A. galbra* and *A. paeoniifolius*. They're fairly common in SGAP gardens, giving rise to unusual and rather stinky inflorescences which are closely followed by a single

leaf. The short-lived inflorescence

is given

the lion's share of attention, and justifiably so: the inflorescence of the related *A. titanum* is the largest in the world. However, we should stop to ponder the unusual leaves of this genus.

Each bulb produces just one leaf per season. In Australia, they're fairly modest in size: not much more than a metre, with the leaf stem (petiole) splitting into three at the top and bearing many small leaflets. However, in the south-east Asian *Amorphophallus*, these stems can reach six metres high with a diameter almost as thick as your leg. These leaf stems aren't hard and woody, like a proper tree trunk. Instead they're soft



Amorphophallus galbra, growing amongst granite boulders near Coen. There are two leaves here - each looks like a shrub or small tree sapling.



The leaf of *Amorphophallus titanum* looks like a small tree, and the spots on the petiole make it look like an old, hard woody tree trunk covered in lichens.

and fleshy and collapse at the end of each season. What's to stop these soft, fleshy structures being grazed by passing herbivores like elephants and wild cattle?

To answer this question, Cyrille Claudel and co-authors have published an intriguing hypothesis in this month's "Botanical Journal of the Linnean Society". They suggest that the interesting leopard-like spots on the petiole of *Amorphophallus* aren't just an accident of growth - they are a form of camouflage. The spots take on the appearance of lichens, and in some *Amorphophallus* species, they are even textured like lichens, with stronger texturing near the base of the petiole, and less so near the top. Others have patterns like blue green algae fed by water running down the petiole. Claudel argues that these patterns make the short-lived, fleshy petiole look like a years-old tree trunk - not so much a camouflage as a masquerade. So, next time you're in the Cairns Botanic Gardens conservatory, take time to look at their diverse array of giant *Amorphophallus* and appreciate the beauty of the intricate patterns on their leaves.

In flower this month



Alyxia ruscifolia



Thelymitra ?queenslandica



Grevillea glossadenia



Helicia nortoniana

WHAT'S HAPPENING...

Cairns Branch

Sunday 16 June, 10 a.m.

Property of Anthony Lagois and Brian Moran, Bayview Heights. You can access directly from Anderson St, or indirectly off Toogood Road (see map below).

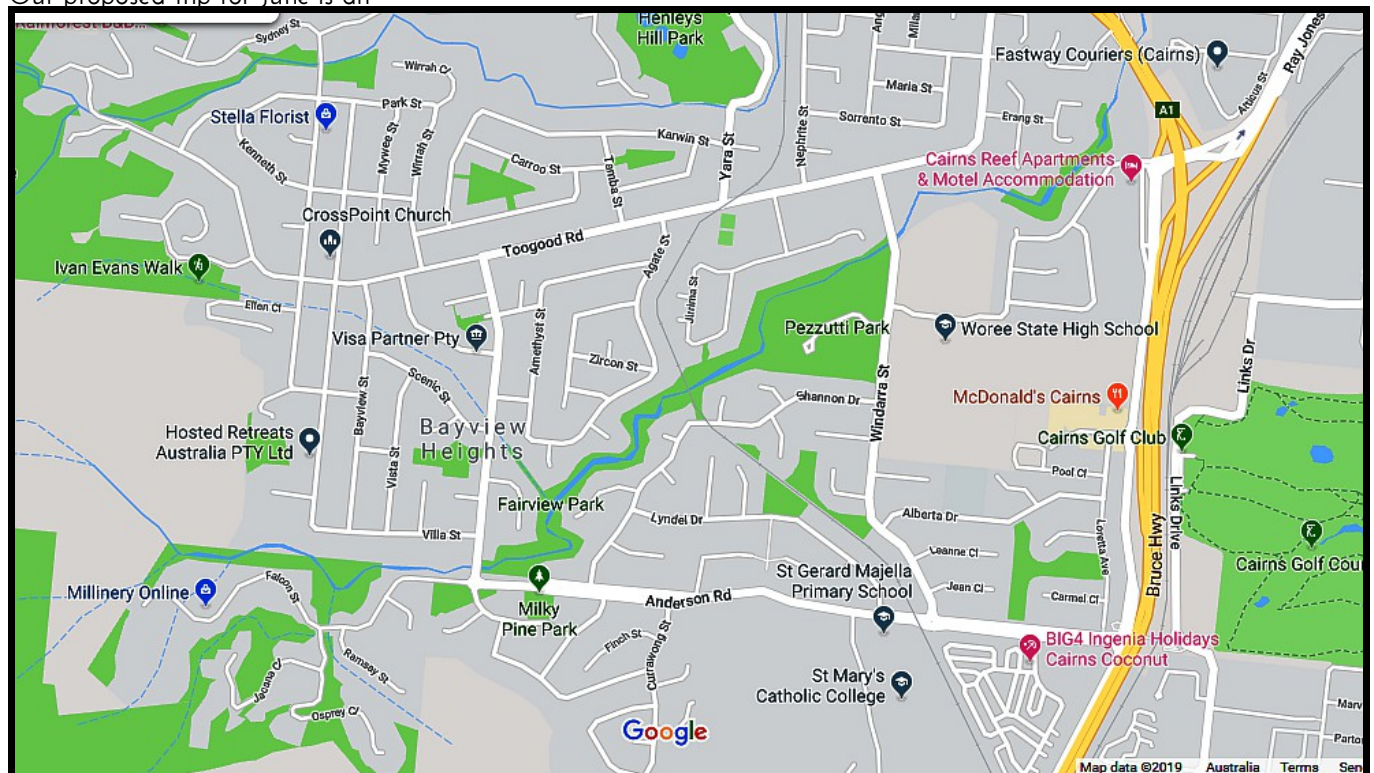
Townsville Branch

Meetings on the 2nd Wednesday of each month at 8pm, Annandale Community Centre. Excursions the following Sunday. Website: www.npqtownsville.org.au

Contact: John Elliott (Secretary) jw-elliott@aapt.com.au

Sunday 16 June

Our proposed trip for June is an



Range on Sunday, 16th June.

If staying longer campsites may be booked through the White Mountains National Park site.

We will meet at Bungaree Creek at 10.00am - a great time for a cuppa! Allow 3 hours driving from Townsville.

So, when travelling from Charters Towers (go through Pentland) then proceed approx. 7 kilometres past Warrigal Creek (the boundary of the National Park) and there find a track to the left through a narrow gateway (this is Bungaree Creek), and follow this a short distance to the dam. T

We will then proceed to the lookout on the highway, borrow pits (which unfortunately have been worked over very severely to cater for flood repairs to the west) and on to the sandstone lookout (also known as our lunch spot) which should give us a good appreciation of the recovery progress.

Meetings on the 4th Wednesday of each month at 7:30 pm, Tolga CWA Hall. Excursions the following Sunday.

Excursion officers: Bert and Chris Jaminon, 40914565.



Styphelia piliflora (formerly *Astroloma* sp. *Baal Gammon*).