



*Society for Growing Australian Plants
Cairns Branch*

NEWSLETTER

Newsletter No 234

September, 2023

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*State Conference 14 to 18 September
with guided excursions South to Innisfail,
West to The Tablelands and North to Mossman*

All Cairns Branch members will have received a copy of the program together with information on how members can be involved. As usual if you email secretary@sgapcairns.org.au to say you have arranged to come on the bus or are coming under your own steam it will be helpful.



Josephine Falls Walk

Helen Lawie

"A Grand Day Out at Josephine Falls"



Photo: Lois Hayes

Josephine Falls walk and swimming hole is a favourite with tourists and locals alike. The walk to the swimming hole and natural granite rock slip-and-slide is 1.2 km round trip. The top falls is a little further uphill, and best enjoyed from the lookout only. To slip here, on the wrong side of the barrier, can be fatal. Even at the lower pool warning signs advise there is a flash flooding risk. Rainfall upstream has been a catalyst for more than one swift-water rescue effort, though it is hard to imagine on the day we visited.

The sun is shining, families are splashing happily, and the icy cold water is incredibly inviting on a warm August afternoon.

(Especially if you are dressed to deter sunburn, mozzies, and scrub itch, as we SGAPers usually are!)

The bitumen path through the rainforest is of easy grade and wide enough for two, unlike the track to the summit. There are no info-boards to signpost the amazing diversity of plant species that we found at every layer from the canopy to the leaf litter. Regardless of your special interest, there were multiple examples to engage and delight, and possibly confound. Luckily Bob Jago was available to focus our attention and highlight some gems along the way, while we recognised some familiar plants and marvelled at all around us. Please refer to his Species List in this edition.

Let's take a moment to appreciate just how marvellous the rainforest of Wooroonooran National Park really is. It includes Mount Bartle Frere (Chooreechillum) the highest mountain in Queensland at 1,622 m. It is part of just 0.25% of the Australian land area covered in rainforest (nationalparks.nsw.gov.au).

When I first saw this stat on a sign in Cooktown Botanic Gardens it truly astonished me.

Further digging reveals 16% of the Australian land area is covered in 'forest', i.e., trees over 2 m with 20% or more potential crown cover/canopy (agriculture.gov.au). That includes types Acacia, Callitris, Casuarina, Eucalypt, Mangrove, Melaleuca and Rainforest. In that case 0.25% Aussie land area as rainforest starts to sound more reasonable. Furthermore, that includes all kinds of rainforest from subtropical to temperate. This means tropical rainforest, as we see all around us here in beautiful Cairns, is a subset of that tiny percentage of land area.

Finally, the incredibly high rainfall needs to be noted. Nearby Babinda received 4,543 mm in 2022, while the top gauge at Mount Bellenden Kerr at an altitude of 1,593 m recorded an annual tally of 8,611 mm in 2022 (Bureau of Meteorology). No doubt these features were factored into the inclusion of this place when the Wet Tropics World Heritage Area was established.

An *Acmena graveolens*, Cassowary Satinash, grew splendidly near the car park. We also witnessed recent evidence of actual Cassowary peregrination, with an impressive deposit in the corner of the picnic shelter. *Trichospermum pleiostigma*, Whitfield Ash, was seen along the path. This fast-growing tree is here for a good time, not a long time. A native climbing bamboo, *Mullerochloa moreheadiana*, was intriguing, particularly for those of us who were surprised to hear of a native bamboo. At first glance it could easily be mistaken for *Flagellaria indica*, the Supplejack vine. However, if the curled whips at the end of the leaf are eliminated and the nodes and faded sheaths noted, a clearly recognisable bamboo emerges.



Ptisana oreades – Potato Fern
Photo: Helen Lawie

For a time the path followed a little creek. Right next to the creek in a textbook habitat niche stood a small *Ptisana oreades*, Potato Fern. Like our fan fave *Angiopteris evecta*, King Fern, its upright fronds are highly dependent on

water turgor or pressure. The rainfall and humidity present even in dry season October (only 14 days of rain in the area!) might also explain the multiple trees with adventitious roots. Growing directly on a moss covered rock in the creek was *Vandenboschia johnstonense*, a fern so delicate and so tenacious.



Vandenboschia johnstonense
Photo: Helen Lawie

At the viewing platform we saw an impressively large *Antrophyum callifolium*, Ox-tongue fern, growing on a tree trunk. The stunning *Dendrobium jonesii* were in full

flower high out of reach over the falls, enjoying their misty perch.

Kuntheria pedunculata, Russell River Lily, endemic to NE Qld, was in flower, conveniently close to the path.



Kuntheria pedunculata
Photo: Helen Lawie

Next to the stairs to the swimming hole stands a large *Endiandra palmerstonii*, Black Walnut. This majestic tree was so covered in epiphytes it was difficult to point out individual plants for discussion. A couple were *Epipremnum pinnatum*, Native Monstera, and *Bulbophyllum baileyi*. Closer to the base of the trunk a *Peperomia bellendenkerensis* grew; more usually found on rocks near water, it is reasonably rare.

Of the extensive plant list prepared by Bob Jago, some may be considered locally common, endemic, or rare. The way we can enjoy such beautiful rainforest so close to home, could also be considered reasonably rare, and incredibly precious.

AND SO - From Mistletoe to Santalum and Balanophora

Following on from last month's chat about mistletoes and their relationships with the local flora and fauna, I'd like to mention a relative that behaves in a slightly different way.

The northern sandalwood, *Santalum lanceolatum*, is also a hemiparasitic plant, that takes nutrients and water from its hosts' vascular systems as well as conducting its own photosynthesis. It differs from mistletoes in that it is a tall shrub, is rooted in the soil and attaches to the hosts' root systems

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mistletoes in that it is a tall shrub, is rooted in the soil and attaches to the hosts' root systems.

The northern sandalwood is quite widely

spread, occurring in all of the mainland states and the Northern Territory. It is found in the drier parts of our region, often growing in sandy soil. It is one of about six sandalwood species that occur in Australia. Like its brother, the Indian or true sandalwood, *Santalum album* (also an Australian native species), the northern sandalwood produces sandalwood oil in its heartwood.



Consequently, the northern sandalwood has been harvested commercially for over 100 years. Due to a decline in the plant's population, its harvest is now strictly regulated.

Unfortunately, it is not only harvesting that is taking its toll on the plant's population, Australia's hundreds of thousands of feral camels have taken a liking to its foliage. Although small, the fruit of the northern sandalwood is a recognised bush food that I think, has a very pleasant taste.

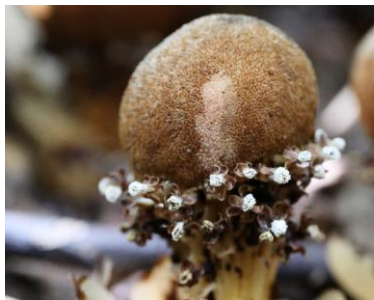
Sandalwoods have been placed in the Santalaceae. This family also contains many other root parasites. One which is common around here is *Exocarpos latifolius*, the broad-leaved ballart.



You can find healthy populations on Mt Whitfield and the Northern Beaches. It too attaches to host plants' roots by haustoria. The fruit of *Exocarpos latifolius* is inedible, however the swollen pedicel or fruit stalk is bush tucker and often called a cherry. In my opinion, though not unpleasant, I reckon it tastes like Perkins Paste (don't ask).



The broad-leaved ballart is common across northern and northeastern Australia. The rest of Australia does not really miss out though, as the other 12 or so native *Exocarpos* species are spread over most of the remainder of the country.



My favourite root parasite is related to the mistletoes and sandalwoods but does not contain any chlorophyll; it is totally reliant on its host(s) for

survival. *Balanophora fungosa* or fungus root is a small rainforest species that spends a lot of its life underground. It only breaks the surface to flower and reproduce.

Of the 20 or so *Balanophora* species, only one is found in Australia, along the east coast of Queensland. Being unreliant on photosynthesis for survival gives the balanophoras an advantage in the dark rainforest understory, where most species struggle to survive. They obtain their food and water from the roots of rainforest trees growing around them.

The common name fungus root not only alludes to the fungus-like habit of parasitising living plants for survival, the inflorescences of these unique, little plants look like fungal fruiting bodies to the casual observer. You have to look closely to see the thousands of tiny female flowers covering the top of the swollen inflorescence and the larger male flowers around the shaft.

Attribution for photos North Queensland Plants <http://northqueenslandplants.com>

Flowering at East Russell



Dendrobium smillieae
Photo: Pauline Lawie

What photo or article can you send for inclusion in our newsletter?

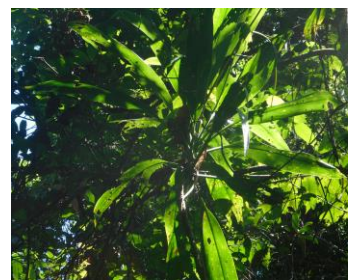
CORDYLINES

Don Lawie

Cordyline plants are a well known, but little noticed feature, in many tropical gardens. The

genus contains 15 species of which about eight occur in Australia. They are a plant of the hot wet tropics and are native to the pantropic area from Indo Malaysia to Northern Australia. The main Cordyline species is *Cordyline cannifolia* known as Palm Lily. Since Cordylines belong to the Family Agavaceae, they are neither palms nor lilies (nor are they really Agaves).

Australian Cordylines have a green main stem which reaches three metres in height, large soft green leaves 45 x 15 cm and in the early part of the year an inflorescence from the top followed by small green fruit in bunches.



Cordyline cannifolia
Photo: Don Lawie

Propagation is by seed from the fruit after it turns red, or by cuttings which develop roots very quickly – either method is reliable.

Exotic Cordylines were either green or red but over the centuries a bewildering array of hybrids has been bred from seed. *Cordyline terminalis* in particular has many hundreds of named varieties with leaves ranging from solid blocks of colour to stripes and streaks. *C terminalis* is particularly popular in Hawaii; they were brought to the islands about 1,000 years ago by the Polynesian settlers who regarded them as having magical properties of protection and medication.

They are used today as Good Luck plants and almost every Hawaiian home has a Cordyline garden. (come to think of it – we have some in our garden). The large leaves are also used as raincoats and sandals, house thatching and cattle fodder and if that is not enough – an alcoholic drink is concocted from the roots.

Acknowledgements to Frank Browne's book *The Cordyline*

PLANT LIST FOR JOSEPHINE FALLS by Dr R L JAGO

JOSEPHINE FALLS WALK

FERNS & ALLIES

Aspleniaceae

Asplenium nidus	Birds Nest Fern
Asplenium simplicifrons	Narrow Bird's Nest Fern

Athyriaceae

Diplazium dilatatum

Blechnaceae

Blechnum cartilagineum	Gristle Fern
Blechnum orientale	

Cyatheaceae

Alsophila rebecca	Black Tree Fern
Alsophila woollsiana	
Sphaeropteris cooperi	Scaly Tree Fern

Davalliaceae

Davallia repens	Dwarf Hare's Foot Fern
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Dennstaedtiaceae

Microlepia speluncae	Cave Fern
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Dryopteridaceae

Lastreopsis poecilophlebia

Gleicheniaceae

Dicranopteris linearis	Scrambling Fern
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Hymenophyllaceae

Abrodictyum obscurum
Crepidomanes bipunctatum
Crepidomanes saxifragoides
Vandenboschia johnstonense

Lygodiaceae

Lygodium reticulatum

Marattiaceae

Ptisana oreades	Potato Fern
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Nephrolepidaceae

Nephrolepis cordifolia	Sword Fern
Nephrolepis hirsutula	
Nephrolepis oblitterata	

Polypodiaceae

Dendroconche ampla	
Dictymia brownii	Strap Fern
Drynaria rigidula	Basket Fern
Goniophlebium subauriculatum	
Platyterium hillii	Northern Elkhorn Fern
Prosaptia fuscopilosa	

Selaginellaceae

Selaginella longipinna Spike Moss

Tectariaceae

Arthropteris palisotii

Arthropteris submarginalis

Thelypteridaceae

Spaerostephanos heterocarpus

GYMNOSPERMS

Zamiaceae

Bowenia spectabilis Bowenia or Zamia Fern

Lepidozamia hopei Zamia Palm or Hope's Cycad

FLOWERING PLANTS-BASAL GROUP

Annonaceae

Cananga odorata Woolly Pine

Monoon michaelii Canary Beech

Polyalthia hispida

Polyalthia johnsonii

Atherospermataceae

Doryphora aromatica Northern Sassafras

Eupomatiaceae

Eupomatia barbata Small Bolwarra

Eupomatia laurina Wujigay

Lauraceae

Beilschmiedia tooram Tooram Walnut

Cryptocarya grandis Cinnamon Walnut

Cryptocarya mackinnoniana Rusty Laurel

Cryptocarya murrayi Murray's Laurel

Cryptocarya oblata Tarzali Silkwood

Cryptocarya pleurosperma Poison Laurel

Endiandra acuminata Brown Walnut

Endiandra compressa Queensland Greenheart

NT Endiandra globosa Ball-fruited Walnut

Endiandra impressicosta Steelbutt

Endiandra insignis Hairy Walnut

Endiandra leptodendron

Endiandra palmerstonii Black Walnut

Endiandra sankeyana Sankey's Walnut

Litsea bindoniana Big-leaf Bollywood

Litsea leefeana Bollywood

Neolitsea dealbata Grey Bollywood

* Persea americana Avocado

Monimiaceae

	Palmeria scandens	Anchor Vine
	Steghanthera laxiflora subsp laxiflora	Tetra Beech
Myristicaceae		
	Myristica globosa subsp muelleri	Nutmeg
Piperaceae		
	Peperomia bellendenkerensis	
	Piper caninum	Native Pepper
	Piper macropiper	Native Pepper

FLOWERING PLANTS-MONOCOTYLEDONS

Araceae		
	Epipremnum pinnatum	Native Monstera
	Gymnostachys anceps	Settler's Flax
Arecaceae		
	Archontophoenix alexandrae	Alexandra Palm
	Calamus australis	Hairy Mary Lawyer Cane
	Calamus caryotoides	Fishtail Lawyer Cane
	Linospadix microcaryus	Walking Stick Palm
Colchicaceae		
	Kuntheria pedunculata	Russell River Lily
Commelinaceae		
	Aneilema acuminatum	
Hemerocallidaceae		
	Dianella bambusifolia	Flax Lily
Hypoxidaceae		
	Molineria capitulata	Weevil Lily
Laxmanniaceae		
	Eustrephus latifolius	Wombat Berry
	Lomandra hystrix	Creek Matrush
Orchidaceae		
	Bulbophyllum baileyi	Fruit Fly Orchid
	Dendrobium jonesii	Oak Orchid
	Zeuxine oblonga	Common Jewell Orchid
Pandanaceae		
	Benstonea monticola	Scrub Breadfruit
	Freycinetia scandens	
Poaceae		
*	Axonopus compressus	Broad Leaf Carpet Grass
	Cyrtococcum oxyphyllum	
	Muellerochloa moreheadiana	Climbing Bamboo
	Ottochloa nodosa	
Smilacaceae		
	Smilax aculeatissima	
	Smilax glyciophylla	Sweet Sarsaparilla

Zingiberaceae

Alpinia arctiflora	Pleated Ginger
Alpinia caerulea	Native Ginger
Alpinia modesta	Narrow Leafed Ginger
Hornstedtia scottiana	Native Cardamon

FLOWERING PLANTS-EUDICOTS

Acanthaceae

Pseuderanthemum variabile	Pastel Flower
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Anacardiaceae

* Mangifera indica	Mango
Rhus taitensis	Sumac

Apiaceae

Centella asiatica	Pennywort
Mackinlaya confusa	Mackinlaya

Apocynaceae

Alstonia muelleriana	Hard Milkwood
Alstonia scholaris	Milky Pine; Jalnggan
Cerbera inflata	Grey Milkwood
Melodinus australis	Bellbird Vine
Melodinus bacellianus	Murpe
Tabernaemontana pandacaqui	Banana Bush

Araliaceae

Hydrocotyle acutiloba	Pennywort
Polyscias australiana	Ivory Basswood
Polyscias elegans	Celerywood
Polyscias mollis	
Polyscias murrayi	Chinky Pine
Polyscias purpurea	

Asteraceae

* Ageratum conyzoides var conyzoides	Blue Top; Billygoat Weed
* Crassocephalum crepidioides	Thickhead

Balanophoraceae

Balanophora fungosa subsp. fungosa	
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Begoniaceae

* Begonia hirtella	Begonia
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Bignoniaceae

Neosepicaea jucunda	Jucunda Vine
Pandorea pandorana	Wonga Vine

Byttneriaceae

Commersonia macrostipulata	Kuranda Kurrajong
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Celastraceae

Hedraianthera porphyropetala	Hedraianthera
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Clusiaceae

Garcinia warrenii	Native Mangosteen
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Combretaceae	<i>Terminalia sericocarpa</i>	Damson
Connaraceae	<i>Connarus conchocarpus</i>	Shell Vine
	<i>Rourea brachyandra</i>	Water Vine
Convolvulaceae	<i>Decalobanthus peltatus</i>	Cook's Glory Vine
Cunoniaceae	<i>Davidsonia pruriens</i>	Davidson's Plum
	<i>Gillbeea adenopetala</i>	Pink Alder
	<i>Karrabina biagiana</i>	Brush Mahogany
Dilleniaceae	<i>Tetracera daemeliana</i>	
	<i>Tetracera nordtiana</i>	Fire Vine
Ebenaceae	<i>Diospyros pluviatilis</i>	Milla Milla Ebony
Elaeocarpaceae	<i>Elaeocarpus grandis</i>	Silver Quandong; Murrigan
	<i>Sloanea australis</i> subsp. <i>parviflora</i>	Maiden's Blush or Cudgerie
Euphorbiaceae	<i>Claoxylon tenerifolium</i> subsp. <i>boreale</i>	Queensland Brittlewood
	<i>Homalanthus novoguineensis</i>	Native Bleeding Heart
	<i>Macaranga involucrata</i> var. <i>mallotoides</i>	Brown Macaranga
	<i>Macaranga polyadenia</i>	Swamp Macaranga
	<i>Macaranga tanarius</i>	Blush Macaranga
	<i>Rockinghamia angustifolia</i>	Kamala
Fabaceae	<i>Austrosteenisia stipularis</i>	
	<i>Castanospermum australe</i>	Black Bean; Junggurra
	<i>Mucuna gigantea</i>	Burny Bean
Gentianaceae	<i>Fagraea cambagei</i>	Yellowheart
Icacinaceae	<i>Apodytes brachystylis</i>	Buff Alder
Lamiaceae	<i>Faradaya splendida</i>	October Glory
	<i>Glossocarya hemiderma</i>	
Lecythidaceae	<i>Barringtonia calyptrata</i>	Cassowary Pine
Maesaceae	<i>Maesa dependens</i> var. <i>pubescens</i>	
Melastomataceae	* <i>Tristemma mauritianum</i>	Juicy Fruits
Meliaceae	<i>Dysoxylum oppositifolium</i>	Pink Mahogany

	Dysoxylum papuanum	Spice Mahogany
	Dysoxylum parasiticum	Yellow Mahogany
	Dysoxylum pettigrewianum	Spur Mahogany
Menispermaceae		
E	Carronia pedicellata	
	Carronia protensa	
	Hypserpa decumbens	
	Parapachygone longifolia	
Mimosaceae		
	Acacia celsa	Black Wattle
	Archidendron whitei	White's Archidendron
	Entada phaseoloides	Match Box Bean
*	Inga vera	Icecream Bean
Moraceae		
	Ficus congesta var. congesta	Red Leaf Fig
	Ficus leptoclada	Atherton Fig
	Ficus virgata var. virgata	Figwood
Myodocarpaceae		
	Delarbrea michieana	Blue Nun
Myrsinaceae		
	Ardisia brevipedata	Native Ardisia
Myrtaceae		
	Acmena graveolens	Cassowary Satinash
	Decaspermum humile	Brown Myrtle; Silky Myrtle
	Pilidiostigma tetramerum	Russell River Ironwood
	Pilidostigma tropicum	Apricot Myrtle
	Rhodamnia sessiliflora	Iron Malletwood
	Syzygium apodophyllum	Rex Satinash
	Syzygium cormiflorum	Bumpy Satinash
	Syzygium gustavioides	Grey Satinash
	Syzygium kuranda	Kuranda Satinash
	Waterhousea hedraiophylla	Gully Satinash
	Xanthostemon chrysanthus	Golden Penda; Black Penda
	Xanthostemon whitei	Red Penda
Oleaceae		
	Chionanthus ramiflora	Native Olive
Oxalidaceae		
*	Oxalis debilis var. corymbosa	Pink Shamrock
Phyllanthaceae		
	Bridelia insulana	Grey Birch
	Glochidion harveyanum var. harveyanum	Harvey's Buttonwood
	Glochidion sumatranum	Buttonwood
Pittosporaceae		
	Pittosporum rubiginosum	Red Pittosporum
Polygalaceae		

	Xanthophyllum octandrum	MacIntyre's Boxwood
Proteaceae		
	Cardwellia sublimis	Northern Silky Oak
	Carnarvonia araliifolia var araliifolia	Caledonian Oak
	Darlingia darlingiana	Brown Silky Oak
	Helicia nortoniana	Norton's Silky Oak
	Hicksbeachia pilosa	Hicksbeachia
Rhamnaceae		
	Alphitonia whitei	Red Ash
	Ventilago ecorollata	
Rhizophoraceae		
	Carallia brachiata	Corky Bark
Rosaceae		
	* Rubus alceifolius	Giant Bramble
Rubiaceae		
	Antirhea tenuiflora	Crimson Berry
	Atractocarpus fitzalanii subsp fitzalanii	Brown Gardenia
	Atractocarpus hirtus	Hairy Gardenia
	Exallage lapeyrousei	
	Ixora baileyana	Bailey's Ixora
	Lasianthus chlorocarpus	Blue Rubi
	Ophiorrhiza australiana subsp australiana	
	Psychotria sp. (Utchee Creek H. Flecker NQNC5313)	
	Psydrax tropica	
	Uncaria lanosa var. appendiculata	
Rutaceae		
	Acronychia vestita	Hairy Aspen
	Brombya platynema	Brombya
	Flindersia bourjotiana	Qld. Silver Ash
	Flindersia pimenteliana	Maple Silkwood
	Medicosma fareana	White Aspen
	Melicope elleryana	Evodia
	Melicope vitiflora	Leatherwood
	Pitaviaster haplophyllus	Yellow Aspen
Sapindaceae		
	Aryterya pauciflora	Pink Tamarind
	Cnesmocarpon dasyantha	Pink Tamarind
	Cupaniopsis flagelliformis	Brown Tuckeroo
	Diploglottis bernieana	Bernie's Tamarind
	Guioa lasioneura	Silky Tamarind
	Harpullia frutescens	
	Mischocarpus lachnocarpus	Woolly Tamarind
	* Nephelium lappaceum	Rambutan
	Rhysotoechia robertsonii	Robert's Tuckeroo
	Sarcopteryx martyana	

	Synima cordierorum	Synima
	Toechima erythrocarpum	Pink Tamarind
Sapotaceae		
*	Chrysophyllum cainito	Star Apple
	Niemeyera prunifera	Milky Plum
	Palaquium galactoxylum	Cairns Pencil Cedar
	Planchonella chartacea	Dugulla
	Planchonella myrsinodendron	Yellow Boxwood
Sparrmanniaceae		
	Trichospermum pleiostigma	Whitfield Ash
Sterculiaceae		
	Argyrodendron peralatum	Red Tulip Oak
Symplocaceae		
	Symplocos paucistaminea	White Hazelwood
Vitaceae		
	Causonis australasica	Bushkiller
	Cayratia saponaria	Native Grape
	Cissus vinosa	Purple Leaf Grape
	Leea novoguineensis	Bandicoot Berry

R. L. Jago