



Society for Growing Australian Plants (Queensland Region) Inc.

Cairns Branch
PO Box 199
Earlville Qld 4870

Newsletter No. 98
April 2010

Society Office Bearers

Chairperson	Tony Roberts	40 551 292
Vice Chairperson	Mary Gandini	40 542 190
Secretary	David Warmington	40 443 398
Treasurer	Robert Jago	40 552 266

Membership Subscriptions- Qld Region- Renewal \$35.00, New Members \$40, each additional member of household \$2.00 **Student** - \$30.00, **Cairns Branch Fees** -\$10.00 Full Year

To access our Library for the loan of publications, please contact David Warmington
Newsletter Editor: Tony Roberts travelling_botanist@yahoo.com.au

Dates to remember

Cairns Branch Meetings and Excursions – third Saturday of each month.

NEXT MEETING 17 April 2010 at Cairns Botanic Garden followed by a visit to the proposed Banks and Solander garden site, the Gondwana garden and the remnants of the R&T garden.

Tablelands Branch Excursion– Sunday following the meeting on the fourth Wednesday of the month. Any queries please contact Chris Jaminon 4095 2882 or hjaminon@bigpond.com

Townsville Branch

General Meeting Please contact John Elliot: jw-elliott@aapt.net.au for more information

April Meeting

The April meeting will be held at the Cairns Botanic Garden. We will meet for lunch in the service area near the nursery at 1200. The 1300 meeting will be followed by a stroll to the proposed Banks and Solander garden site where David will explain his vision.

We will then examine what is left of the R&T garden and see how the Gondwana garden has developed over the 14 years since it was planted.

AGM – Report

The AGM was held at Trudi & Tony's place in Brinsmead. Trudi & Tony Roberts, David Warmington, Mary Gandini, Ing Toh and Stuart Worboys attended.

Apologies were received from: Bob and Bianca Jago, Don and Pauline Lawie

Your new committee was elected without much change from last year.

Chairperson: Tony Roberts

Vice Chairperson: Mary Gandini

Secretary: David Warmington

Treasurer: Robert Jago

Librarian: David Warmington

Newsletter Editor: Tony Roberts

Chairperson's Report

Current Membership Pre AGM election:

Chairperson	Tony Roberts
Deputy Chairperson	Mary Gandini
Treasurer	Rob Jago
Secretary	Ing Toh
Librarian	David Warmington
Newsletter Editor	Tony Roberts
Ordinary Members	Bronwyn Hookey Stuart Worboys Ann Mohun Barb Collins Don Lawie Pauline Lawie Graeme Carnie Val Carnie Trudi Roberts Lisa O'Mara

Current Newsletter Distribution 29 copies emailed to Cairns and other branch members.

Brief recap of our outings over the past year– please see the relevant newsletters for the detailed trip reports

March

AGM followed by a tour of the Jago rare plant repository
Well attended

April

Tour of Yuruga Nursery hosted by Peter and Ann Radke
Again well attended

May

Ella Bay joint outing with Innisfail SGAP
Total of 19 members attended

June

Cooktown Botanic Gardens
4 Cairns members and 8 Tablelands members attended

July

Josephine Falls
8 members attended

August

Fitzroy Island
2 members attended

September

Chillagoe area in search of the Rare *Graptophyllum excelsum*
10 members attended (12 if you count Trudi & Tony who were taken out on the Kennedy Highway)

October

Barron Gorge NP
2 members attended

November

CBG Breakup and short walk to see the mangrove clearing in Saltwater Creek
Well attended

February

Walk track/Cycleway tour Clifton to Palm Cove
Well attended

I would like to thank:

- the members for allowing me the opportunity to preside as Chairperson
- the Committee for their support during the year
- the Excursion organisers
- the members for their Involvement during the year.

I did notice a correlation between the amount of effort that went into the organisation of an outing and the number of attendees.

I look forward to an exciting new year with the highlight undoubtedly being the new project "The Banks and Solander Garden" at the Cairns Botanic Garden (after the success of the Mangrove project)

Lost Treasures of the Wet Tropics

Bob Jago

Introduction

Over the past 136 years 17 plant species recorded for the Wet Tropics are listed as Extinct in the Wild under the *Nature Conservation Act 1992*. In addition to these 17 listed species there are several other, both described and undescribed, that could also be listed as extinct as they have not been seen in some cases for over a century. To lose one is unfortunate; to lose two could be put down to bad luck; to lose in excess of twenty can only be described as careless.

This series of articles will examine these so called extinct plants and the people who made the collections as well as some notes on the times and place the collections were made. I have started with Rubiaceae because I am constantly coming across members of this family that confuse and confound me when it comes to identification, especially when only sterile material is available. Anyone interested in taking part for a search of these lost treasures should contact the author.

ORDER: GENTIANALES **Family:**
Rubiaceae

Wendlandia psychotrioides (F. Muell.)
F. Muell.

Synonyms: *Hedyotis psychotrioides*;
Oldenlandia psychotrioides

Type: On the Russell River; W.A. Sayer

Introduction: First described by Barron Ferdinand von Mueller (1889) as *Oldenlandia psychotrioides*. Revised by Mueller later that year to *Wendlandia psychotrioides*.

Description

Leaves rather large, ovate to elongate-lanceolate, somewhat acuminate, almost membranous, narrowed into a short petiole, glabrous above, pale beneath, the veins hairy, stipules deltoid, short-pointed, fugacious; cymes in a terminal divergently branched panicle, densely clothed with short, appressed, brownish-grey hairs; flowers imbricate in bud, quite small, 5-merous; bracts minute, narrow to semilanceolate; calyx lobes roundish to deltoid, very short; tube of the corolla almost entirely enclosed, inside glabrous, turgid; lobes membranous, venulose, about as long as the tube; anthers almost sessile, ovate to ellipsoid, broadest towards the base and there slightly bilobed, their apex minutely bidentate, dehiscence introrse; style never much elongated; stigma very short; epigynous disk beset with minute hairs; fruit small, the 4-valved summit alone emerging, ovate globular, slightly compressed; placenta inserted about the middle of the dissepiment; seeds very minute, shining brown, somewhat oblique to ovate, angular, reticular-foveolate. (This description is largely taken from Bailey, F.M.; Rubiaceae; *The Queensland Flora*, Part 3; 747 (1900).

Habitat: Presumably rainforest.

Distribution: Known only from the type collection made by W. A. Sayer "On the Russell River", year uncertain but sometime between late 1886 and early 1889. (See notes on W.A. Sayer under Collectors & History).

Phenology: Unknown

Conservation Status: Extinct in the wild under the *Nature Conservation Act 1992*.

Etymology: The species epithet refers to this species being *Psychotria*-like. From the Greek *oides*: like, resembling, having the form or nature of.

Pronunciation: wend-LAND-ee-a sy-CO-tree-OY-deez

Notes: The collection of *Wendlandia psychotrioides* by W.A Sayer could on the available evidence have been made anywhere within the catchment of the Russell River as Sayer appears to have collected from near its source to its outlet between 1886 and 1889. The coastal plain in the lower reaches of the Russell is today largely cleared of its native rainforest vegetation and *Wendlandia psychotrioides* could well be extinct if the collection was made from this section of the catchment. The area upstream of the Golden Hole is largely intact. The fact that Sayer managed to get a specimen back to Melbourne is a tribute to his tenacity.

References

Bailey, F.M. (1890) *Hedyotis psychotrioides*; A synopsis of the Qld. Flora; Supplement 3; 54.

Bailey, F.M. (1900) *Wendlandia psychotrioides*: Rubiaceae; *The Qld. Flora*, Part 3; 747.

Halford, D.A. (1992) Review of the genus *Oldenlandia* L. (Rubiaceae) & related genera in Australia; *Austrobaileya*; 3 (4) 697-698.

Mueller, F.M. von. (1889) *Oldenlandia psychotrioides*: Description of Some New Australian Plants; *The Victorian Naturalist*; Vol. 6: No. 3; July 1889; 54.

Mueller, F.M. von. (1889) *Wendlandia psychotrioides*: Bot. Centralbl. 39.

Mueller, F.M. von. (1892) *Wendlandia psychotrioides*: Descriptions of New Australian Plants, with occasional Annotations; *The Vic. Naturalist*; Vol. 8: No. 11; March 1892; 178.

Captain Cook & Coconuts

Bob Jago

Cairns Post 17/03/2010

Coconut palms 'natives'

IT may sound like a nutty pursuit, but Dennis Burton is on a mission to change Queenslanders' perceptions of coconut palms.

The Kuranda resident of 30 years has been so angered by people removing palms from the Far North's beaches, he has started a campaign to have the trees recognised as native species.

Coconut palms are currently regarded by the Queensland Government as a non-native plant, with rangers taking steps to monitor and control their populations.

Mr Burton, 59, hoped authorities might reconsider "naturalising" coconut palms, claiming there was evidence the palms had always dotted the Australia's tropical coastline.

Captain James Cook detailed coconuts on the banks of the Endeavour River in 1770, while a James Cook University study eight years ago suggested there were extant populations of coco-

Daniel Bateman

batemand@icp.newswild.com.au

nuts in the Wet Tropics at the time of European settlement.

"Coconuts belong as a native species in North Queensland, especially, because we are part of the Pacific Rim, which is lined with coconut palms," Mr Burton said.

"The whole reason we don't have as many here is because indigenous people regarded coconuts as a delicacy, and grabbed them straight off the beach."

The Environmental Defenders' Office is examining the legal implications, if any, of the coconut palm becoming regarded as a native species.

Brisbane-based CSIRO researcher Dr Mike

Foale, who has spent 50 years studying coconut palms, said the trees had been part of the natural beachfront environment for millions of years.

Dr Foale said he supported Mr Burton's campaign.

"Declaring the palm a native species would really allow people to embrace coconut palms as a native plant alongside pandanus and other plants that grow along the beach," he said.

Mr Burton said he was prepared to do whatever it took to have coconut palms declared native species.

"If they're not naturalised, it will enable people ... and certain conservation groups to continue with their coconut-culling programs," he said.

"At the moment, for your local Cairnsite, it's becoming very hard to find a coconut to eat or drink!"

Since Coconuts and Captain Cook have both recently been in the news (see above) and one of our projects is the plants collected by Banks & Solander at Cape Grafton in 1770 it is hoped that the following extracts from the Endeavour Journals of James Cook & Joseph Banks will be of some interest.

The Cairns Post 31st March 2010 page 13 in an article titled 'Coconut Palms Native' states "Captain James Cook detailed coconuts on the banks of the Endeavour River in 1770". The following are extracts from the Endeavour Journals of Lieutenant James Cook and Mr. Joseph Banks. The Queensland Herbarium regards Coconuts as naturalised in Queensland that is not native.

June 1770 (Off Palm Island) Cook

Friday, 8th.

“Winds at South-South-East and South; first part light Airs, the remainder a Gentle breeze. In the P.M. we saw several large smokes upon the Main, some people, Canoes, and, as we thought, Cocoa Nut Trees upon one of the Islands; and, as a few of these Nutts would have been very acceptable to us at this Time, I sent Lieutenant Hicks ashore, with whom went Mr. Banks and Dr. Solander, to see what was to be got. In the Meantime we kept Standing in for the Island with the Ship. At 7 they returned on board, having met with Nothing worth Observing. The Trees we saw were a small kind of Cabbage Palms.”

Banks entry for the same day

“After dinner an appearance very much like Cocoa nut trees tempted us to hoist out a boat and go ashore, where we found our supposd Cocoanut trees to be no more than bad Cabbage trees.”

It is believed that the palms investigated on Palm Island were *Livistona drudei*.

Banks entry for 1st July 1770 while at the Endeavour River

“Being Sunday all hands were ashore on liberty, many animals were seen by them. The Indians had a fire about a league off up the river. O[u]r second Lieutenant found the husk of a Cocoa nut full of Barnacles cast up on the Beach; probably it had come from some Island to windward, From Terra del Espirito Santo possibly as we are now in its latitude.”

Banks entry for 5th July 1770 while at the Endeavour River

“Went to the other side of the harbour and walkd along a sandy beach open to the trade wind. Here I found innumerable fruits, many of Plants I had not seen in this countrey; among them were some Cocoa nuts that had been open'd (as Tupia told us) by a kind of Crab, calld by the Dutch *Beurs Krabbe* (*Cancer Latro*) that feeds upon them. All these fruits

were incrusted with sea productions and many of them Coverd with Barnacles, a sure sign that they have come far by sea, and as the trade wind blows almost right on shore they must have come from some other countrey - probably that discoverd by Quiros and calld Terra del Espirito Santo as the Latitudes according to his own account agree pretty well.”

August 1770 (North of Lizard Island) Cook

Tuesday, 14th.

“I had forgot to mention in its proper place, that not only on this Island, but on Eagle Island, and on several places of the Sea beach in and about Endeavour River, we found Bamboos, Cocoa Nutts, the seeds of some few other plants, and Pummice-stones, which were not the produce of the Country. From what we have seen of it, it is reasonable to suppose that they are the produce of some lands or Islands laying in the Neighbourhood, most likely to the Eastward, and are brought hither by the Easterly trade winds. The Islands discover'd by Quiros lies in this parrallel, but how far to the Eastward it's hard to say; for altho' we found in most Charts his discoveries placed as far to the West as this country yet from the account of his Voyage, compared with what we ourselves have seen, we are Morally certain that he never was upon any part of this Coast.”

“When one considers the Proximity of this Country with New Guinea, New Britain, and several other Islands which produce Cocoa Nutts and many other fruits proper for the support of man, it seems strange that they should not long ago be Transplanted here; by its not being done it should seem that the Natives of this Country have no commerce with their Neighbours, the New Guineans.”

September 1770 (Off the south west coast of New Guinea) Cook

Monday 3rd

“This place lies in the Latitude of 6°..15' S^t, about 65 Leagues to the N.E of P^t S.

Augustino or Walsche Caep, and is near to what is call'd in the Charts ^{by the long name} of C. de la Colta de Sa Bonaventura. The land is very low like every other part of the Coast we have seen, here it is thick and Luxuriously cloathed with Woods and Verdure all of which appear green and flourishing; here were Cocoa-nutt Trees, Bread fruit Trees and Plantain trees, but we saw no fruit but on the former and these were small and green; the other trees, shrubs, plants & C^a were ^{like wise} such as is common in the South-Sea Islands and in New-Holland. Upon my return to the Ship we hoisted in the boat and made sail to the Westward with a design to leave the Coast altogether ^{to the no small satisfaction of I beleive the Major part of ye Ships company} ^{it} ~~this~~ however ^{it} was contrary to the inclination and opinion of some of the officers who would have had me send a party of men a shore to cut down the Cocoa-nutt Trees for the sake of the Nutts a thing that I think no man leiving could have justified, for as the Natives had attack'd us for meer land^{ing} without takeing away any one thing, certainly they would have made a vigorous effort to have defended their property in which case many of them must have been kill'd and perhaps some of our own people too and all this for 2 o[r] 300 green Cocoa-nutts which when we had got them would have done us little service ^{besides nothing but the ul[t]most necessity would have oblige'd me to have taken this Method to come at refreshments -}

“A nother doubtfull point I should liked to have clear'd up ^{altho it is of very little if of any consequence} which is whether ~~or~~ ~~no~~ the Natives of New-Holland and those of New-Guinea are or were original one People which one might well suppose as these two Countries lay so near to each other and the intermediate space fill'd up with Islands on the other hand if these Two People have or ever had any ^{friendly} communication with each other it seems strange ^{as I have before observed} that they should not have transplanted from New-Guinea over to New Holland, Cocoa-nutts. Bread fruit, Plantains & C^a & C^a ^{all very usefull Articles for the support of man} that we

never saw grow in the latter and which we have now seen in the former.”

The small type represents comments or afterthoughts made by Cook between the lines of the original hand written journal.

Banks entry for the same day.

“We had no sooner landed than we saw the prints of naked feet upon the mud below High watermark, which convincd us that the Indians were not far off tho we had seen yet no signs of any. The nature of the countrey made it necessary for us to be very much upon our guard: the close thick wood came down to within less than 100 yards of the water, and therefore so near might the Indians come without our seeing them, and should they by numbers overpower us a retreat to the boat was impossible as she was so far from the shore. We proceeded therefore with much caution, looking carefully about us, myself and the Dr looking for plants at the edge of the wood and the rest walking along the Beach. In about 200 yards from our landing we came to a grove of Cocoa nut trees of a very small growth but well hung with fruit standing upon the banks of a small brook of brackish water. Near them was a small shed hardly half coverd with cocoa nut leaves, in and about which were infinite Cocoa nut shells, some quite fresh. We stayd under these trees some time admiring and wishing for the fruit, but as none of us could climb it was impossible to get even one so we even left them and proceeded in search of any thing else which might occur. We soon found Plantains and a single Bread fruit tree but neither of these had any fruit on them, so we proceeded and had got about a quarter of a mile from the boat when on a sudden 3 Indians rushd out of the woods with a hideous shout, about 100 yards beyond us and running towards us. The formost threw something out of his hand which flew on one side of him and burnd exactly like gunpowder, the other two immediately threw two darts at us on which we fird. The most of our guns were loaded with small shot which at the distance they were from us I

suppose they hardly felt, for they movd not at all but immediately threw a third dart on which we loaded and fird again. Our Balls I suppose this time fell near them but none of them were materialy hurt as they ran away with great alacrity. From this specimen of the people we immediately concluded that nothing was to be got here but by force, which would of course be attended with destruction of many of these poor people, whose territories we had certainly no right to invade either as discoverers or people in real want of provisions; we therefore resolvd to go into our boat and leave intirely this coast to some aftercomer who might have either more time or better opportunities to gain the freindship of its inhabitants.”

“The Soil had all the appearance of the highest fertil[it]y but was coverd with a prodigious quantity of trees which seemd to thrive luxuriantly. Notwithstanding this the cocoa nut trees bore very small Fruit and the Plantains did not seem very thriving; the only breadfruit tree that we saw however was very large and healthy.”

Once they got to the East Indies Coconuts were everywhere just as they had been on the tropical Islands of the Pacific they had visited. The Coco Yam, Coco, Cocos, Coccus and West Indian Kale referred to by Cook and Banks in their journals is *Colocasia esculenta*. Some have confused this common name for Taro with that of the botanical name for the Coconut *Cocos nucifera*. It was in fact Taro that Banks & Cook described as growing along the banks of the Endeavour River in 1770.

**Extract from Cook’s 1770 Section
“Some Account of New Wales”**

“In the Northern parts of the Country, as about Endeavour River, and probably in many other places, the Boggy or watery Lands produce Taara or Cocos, which, when properly cultivated, are very good

roots, without which they are hardly eatable; the Tops, however, make very good greens.”

Banks uses the botanical name for both Taro and Coconuts throughout his Journal as well as the common names of Cocos (*Colocasia esculenta*) and Cocoa Nut (*Cocos nucifera*). The Journals of both Cook and Banks are laced with reference to both Taro and Coconuts in their entries for the Pacific and East Indies.



5 Headed Coconut Palm (*Cocos uncifera*) on Puka Rua 2004 (Tony)

Daniel Bateman

batemand@tcp.newsltd.com.au

COCONUT palms may be symbols of the tropics to many, but a scientist says they are damaging the natural environment and may help spread dengue fever.

Cape Tribulation Tropical Research Station director Dr Hugh Spencer has spent the past six years studying the impact the palms have had on native beach vegetation.

He has found the thin 50-100m line of forest that lies between the reef and rainforest – called the littoral zone – is constantly under siege from coconut palms, which edge out native trees, pounding them into submission by constantly dumping fronds and fruit on them.

Coconuts that are left to rot on the ground collect water, providing perfect breeding grounds for the dengue-carrying mosquito.

To prevent the palms from conquering the beachfront at Cape Tribulation, Dr Spencer and a small group of volunteers have been regularly removing juvenile palms the only way they know – by hand.

Where there used to be entire groves, native plants such as pandanus and she-oaks are slowly reclaiming the beach.

"We're getting very, very good recruitment of natural vegetation," Dr Spencer said.

"We've literally removed thousands of coconuts. We're all volunteers. Nobody gets paid in this place.

"It basically means that we are protecting and recovering the most endangered of our forest types."

Cairns Regional Council general manager infrastructure services Ross McKim said the council did not have a policy either. How-

Palms may be dengue hazard

ever, it did have a duty of care denutting palms to reduce the risk of liability.

"Council is aware that the removal of coconut palms can be an emotive issue and actively manage the trees that are featured along the foreshores and parks of the region," Mr McKim said.

"Council undertakes denutting and palm frond removal and manage those trees already in place, rather than remove what trees are currently there.

"While we are aware that these plants may not be native to Australia, council appreciates these palms play an important part in creating the tropical feel of the region."

Dr Spencer previously took more direct action to eliminate palms from the beachfront by boring holes in a number of palms and poisoning them.

The actions angered other locals, who referred to him as a "coconut killer".

Dr Spencer said his relationship with his critics appeared to have simmered.

"I kind of get the feeling that there is more of a mood of acceptance that they really are a problem," he said.

"I get the feeling that is starting to filter though, but I don't have any proof.

"I'm not having many people getting their knickers in a twist about coconuts being removed any more."

Meet the Locals

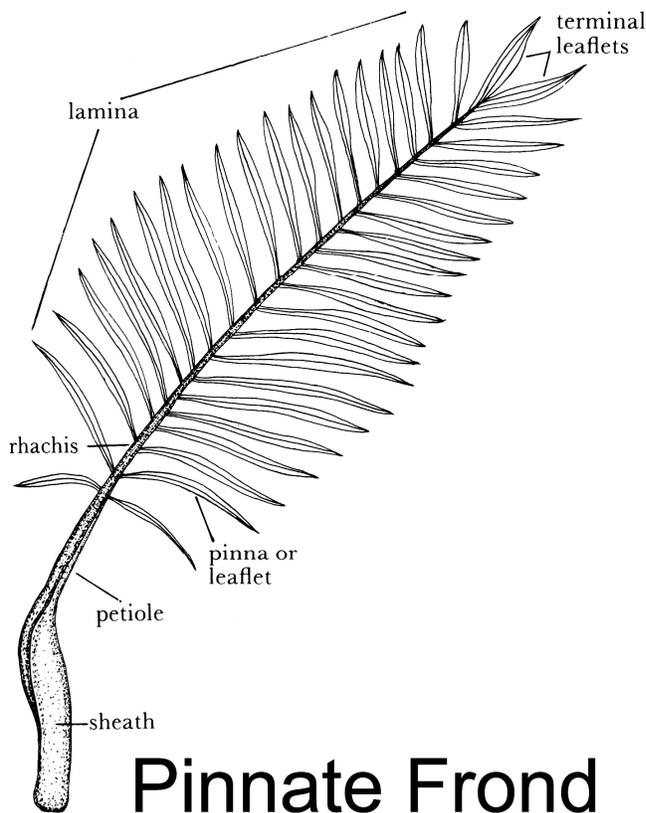
In this new column, I will endeavour to introduce members to some of the native plants found growing around Cairns, and in particular, those growing on Mt Whitfield, and describe how to go about identifying them in the field. Please feel free to contribute to this column with your favourite plant family.

The approach will be at the Family level. I thought that for the first instalment I would cover the family Arecaceae (also correctly known as Palmae), the palms.

General

Members of the family Arecaceae are generally quite easy to identify. They can be **tree** like, **shrub** like or **climbers**, **clumping** or **solitary** and hold their leaves **alternately** at the top or end of the stem.

Leaves are usually **pinnately** or **palmately** divided and are attached to the plant by means of **leaf bases** or **sheaths** that encircle the stem.



Pinnate Frond

Palms are **monocots** (have only one seed leaf) and consequentially have flowers whose parts are arranged in threes. Palms usually have **three sepals**, **three petals** and **six stamens**. The flowers are held in either **panicles** or **spikes** which are covered by a **spathe** while developing.

The fruit is usually a **drupe**, (single-seeded fleshy fruit) but some may contain two or more seeds.

Another characteristic exhibited by the family as a result of being monocotyledonous is an **adventitious root system**. ie the primary root is not dominant and the whole root system is fibrous and branches in all directions.

Palms hold several records in the plant world:

- The tallest monocot (*Ceroxylon quindiuense*) at 60m
- The largest plant seed (*Lodoicea maldivica* the Coco de mer) measures 40-50 centimeters in diameter and weighs up to 30 kilograms.
- The largest leaf (*Raphia* species), measuring up to 25m in length, and
- The largest inflorescence (*Corypha* species) measuring 7.5m in height.

The native palms of Mt Whitfield

Seven palm species occur naturally on Mt Whitfield and they come from five genera.

Calamus: the rattans are climbing palms. On Mt. Whitfield they are easy to recognize, having armed leaf bases and long whip-like flagella (growing from the leaf axil) covered with sharp, backward pointing hooks that assist them climbing into the rainforest canopy. They often start life as attractive, clumping specimens in rainforest clearings and under breaks in the canopy. The fruit are quite attractive covered in scales sometimes sold as “dragon eggs”. There is a small amount of edible flesh around the seeds.

Calamus australis, Hairy Mary has pinnate fronds about 1m (-2.5m) long with 30 to 40 leaflets per frond. The leaf bases are covered with long (to 80mm) spines and the rhachises sparsely with hooks. The leaflets are generally narrow, lanceolate (lance shaped) with fine teeth along the margin (edges) and a few fine spines along the veins. The flagella are 2-3m long with backward pointing hooks.

Traditionally the stems of *Calamus australis* have been used for basket handles and the young shoots were eaten raw or cooked. The stem and leaves were believed to be contraceptive.

Calamus motii, Yellow Thorny Mary has pinnate fronds about 1m (-3m) long with 40 to 100 leaflets per frond. The leaf bases are covered with rows of yellow thorns to 20mm long and the rhachises sparsely with hooks. The leaflets are generally narrow, lanceolate with spines along the margins and veins. The flagella are 3-4m long, branching with backward pointing hooks.

The canes of *Calamus motii*, have reportedly been used to make hunting implements including “nooses for capturing crocodiles”. They have also been used as axe handles and loops for tree climbing. It is reported that parts of the young shoots were eaten after some preparation however some reports claim some laxative effects from doing so.

Calamus caryotoides, Fishtail Lawyer Cane is the smallest of the three species of *Calamus* occurring on Mt Whitfield. It has pinnate fronds 500 – 700mm long with 6 to 12 leaflets per frond. The leaf bases are covered with long spiny hairs (10 – 20mm long) and the rhachises with backward pointing hooks. The leaflets are generally wedge shaped with jagged, praemorse (looking like they’ve been bitten off) tips with spines along the margins and veins. The terminal leaflets are joined on the midrib fishtail like. The flagella are 1-2.5m long with backward pointing hooks.

Traditionally, the stem was used for making baskets and young shoots were eaten as an analgesic.

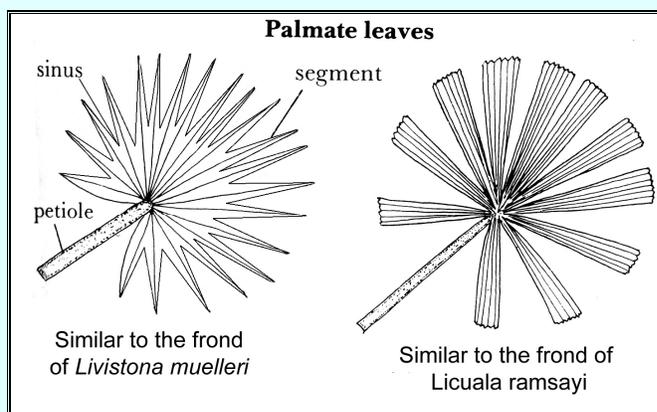
Archontophoenix alexandrae, Alexandra Palm is an icon of north Queensland and is consequently used extensively for landscaping. *Archontophoenix alexandrae* is a solitary, tall (to 20m) tree like palm. It has pinnate fronds 1–2.5m long that tend to twist through 90degrees along their length. The tubular leaf bases are green and long (to about 1m) forming an attractive crown shaft. The leaflets (\approx 160 per frond) are long and gradually taper to a point, bright green above and whitish below.

The growing tip of the palm (palm cabbage) was eaten by the local indigenous people who also used the leaf bases as carriers.

Ptychosperma elegans, Solitaire Palm is a solitary, pinnate leaved palm to 10m tall. Its trunk is rather slender only attaining a width of about 120mm. Fronds are 1-2.5m long with tubular leaf bases forming a crown shaft to 400mm long. Leaflets (50-55) are more or less linear with the tips oblique and praemorse, the terminal leaflets are joined on the midrib fishtail like.

Linospadix minor, Walking Stick Palm is the smallest of the local palms. It is a small (to 1.6m tall), clumping (with only 2-3 dominant stems), pinnate leaved palm. The fronds are 0.6-1m long with 12-14 (2-24) leaflets. The leaflets are irregularly shaped with praemorse tips; the terminal ones are joined on the midrib fishtail like. The inflorescence grows to about 400mm long and when ripe, the small (to 18mm long), edible fruit are either red or yellow.

Licuala ramsayi, Australian Fan Palm is a solitary, palmate leaved palm. It grows to about 18m tall and has a slender (to 200mm diameter) trunk. The palmate fronds have long (to 2m) petioles, supporting a distinctive circular arrangement of wedge shaped leaflets. The leaflets can reach 1m in length, are pleated and have toothed tips.



Points to identification

Calamus: these climbing palms are not too difficult to tell apart with practice:

Calamus australis, Hairy Mary has leaf bases which are covered with long (to 80mm) spines

Calamus motii, Yellow Thorny Mary has leaf bases which are covered with rows of yellow thorns

Calamus caryotoides, Fishtail Lawyer Cane has only 6 to 12 leaflets per frond which are wedge shaped with jagged, praemorse tips.

Archontophoenix alexandrae, Alexandra Palm has pinnate fronds that tend to twist through 90 degrees along their length. The tubular leaf bases form an attractive green crown shaft and the leaflets are bright green above and whitish below.

Ptychosperma elegans, Solitaire Palm has a crown shaft to 400mm long and leaflets with the tips oblique and praemorse, the terminal leaflets are joined on the midrib fishtail like.

Linospadix minor, Walking Stick Palm is a small clumping palm with fronds to 1m long and irregularly shaped leaflets with praemorse tips; the terminal ones joined on the midrib fishtail like.

Licuala ramsayi, Australian Fan Palm has palmate fronds with a distinctive circular arrangement of wedge shaped leaflets.

Other indigenous palms of the greater Cairns area

Archontophoenix purpurea Purple Alexandra Palm is confined Mount Lewis, Mt. Spurgeon and Mt. Finnigan in upland rainforest. Similar in appearance to *A. alexandrae* with some of the differences being

- a red-purple crownshaft covered in waxy scales and,
- leaves not twisting through 90 degrees along their length

Arenga australasica, Australian sugar Palm, is a tall (to 20m) clumping, pinnate leaved palm found growing in coastal, lowland rainforest. The fronds grow to 3.5m (-5m) long and are greyish on the underside. The leaflets have rounded, praemorse tips and irregularly notched margins to some distance back from the tip. Stems of this palm die once they have finished fruiting.

Calamus radicalis, Vicious Hairy Mary has pinnate fronds about 2m long with 60 to 125 leaflets per frond. The leaf bases are covered with dense long (to 60mm) spines. The leaflets are generally narrow, linear with spiny hairs on the upper surface and spiny teeth along the edge. The petiole and rhachis are also armed with spines.

Calamus vitiensis, is distinguished from other native *Calamus* by the lack of a flagella emanating from the leaf axil. Instead, the fronds have backward pointing hooks on the underside of the rhachis which extends to 1.5m beyond the terminal leaflets allowing the plant to climb.

Hydriastele wendlandiana, Water Palm is a clumping, pinnate leaved palm growing to 25m tall. The crownshaft has a whitish hue, the fronds to 2m long. The leaflets are irregularly spaced and uneven in size with jagged tips. This palm usually grows in wet areas.

Laccospadix australasica, Mountain Mist Palm is a solitary or clumping palm that grows to about 8m tall with a slender (50-100mm thick) trunk. The pinnate fronds, grow to about 2.5m long with 40 to 50 leaflets per frond and are reddish when young.

Linospadix apetiolata, is restricted to upland rainforest on Mt. Lewis and Mt. Spurgeon. A small .8 – 3m (-5m) clumping palm (2-3 dominant stems) with very variable frond morphology, from pinnate, to fronds with one side undivided and the other pinnate. Using a hand lens, scattered round, clear cells are clearly visible in the frond. The specific epithet (species name) refers to the frond's lack of a petiole (leaf stem).

Linospadix microcarya, Walking Stick Palm is a small 3m clumping palm (1-6 dominant stems) with pinnate fronds. Using a hand lens, clear, elongated cells are visible on the leaflets, running parallel to the midrib and veins. This species is distributed from Mt. Spurgeon to Innisfail, most commonly found on the lower slopes of Mt. Bartle Frere, Mt. Bellenden-Ker and the Malbon Thompson Range.

Linospadix palmeriana, is found on Mt. Bartle Frere and Mt. Bellenden-Ker above 300m. It is a small (1 – 3m), clumping palm, (with 1-6 dominant stems). The fronds most commonly have only two, broad, opposite leaflets.

Livistona muelleri, Fan Palm. have palmate fronds (see illustration above) on long, thorned petioles, which attach to the short (to 12m), thick trunk by means of fibrous leaf bases. The leaflets are joined for about half of their length

Normanbya normanbyi, Black Palm. A tall (to 20m) pinnate leaved palm, similar in appearance to *Wodyetia bifurcata*, the Foxtail Palm. The leaflets are whitish on the underside, narrowly wedge shaped with praemorse tips. The leaflets are arranged in groups and grow around the rachis giving the frond a bushy (foxtail?) appearance. In contrast, the Foxtail Palm has more leaflets than the Black Palm (by a factor of ≈ 10) and they are green on the underside.

Oraniopsis appendiculata, Rainforest Coconut palm. A solitary, pinnate leaved palm to 10m tall. More common at higher elevations, it grows in creek beds and on banks nearby. The fronds can grow to 4m in length and carry up to 160 leaflets, which are narrow, linear to lanceolate and whitish to pale brown underneath. The common name refers to its "apparent" resemblance to *Cocos nucifera*, the Coconut Palm

Naturalised, exotic palms of the greater Cairns area.

Carpentaria acuminata, Carpentaria Palm

Chrysalidocarpus lucubensis, Golden Cane Palm

Cocos nucifera Coconut

Areca catechu Betel Nut Palm

Elaeis guineensis African Oil Palm