Region

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ASGAP PALM & CYCAD STUDY GROUP
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Mea Culpa : Once again I am cramming all newsletters into the last month of the financial year. Can't blame it on the computer this time, but have waited until flowering etc. information was in. I had hoped to get web sites set up for both study groups by now, so that I can direct people to the relevant parts of the sites for 2 main purposes :- (1) to display colour images without the cost of colour photocopying, &
(2) to set up fairly static information on what species exist, & their horticultural pros & cons.
I should have this done some time in July. The timing is uncertain as I have prostate cancer & am having surgery around July 6th to completely remove it (hopefully leaving a few crucial nerves fairly intact), & they tell me I won't be able to do much for 2-4 weeks. I have spent more time in hospital day visits having biopsies, scans & X-rays than I will take to write these 4 newsletters. For each study group I have edited items so that, for instance, all the weather bits are in the early June newsletters, for easier reading.

Membership Matters : Subs are still $5 in Australia & $10 for overseas, & run from July in one year to June in the next. The 1-line table below shows your status as per my records, where a tick means paid up.

'01-'02	'02-'03	'03-'04	'04—'05	'05-'06	'06-'07

Weather & Plant Behaviour : July & August alternated between a couple of days of frosts to - 4 (all values in degrees Centigrade), then severalwith minima between 7 & 12, then frosts again. September was frost-free & normal, but the earlier temperature alternations threw almost all orchids out of kilter, & most hybrids based on Dendrobium speciosum
&/or D. kingianum, or straight D. kingianum, failed to flower . Sarchochilus flowered poorly or not at all. D. speciosum flowered, but not well. Normal hot weather ensued from October '04 to March'05, & April was cooler as expected. May & June were warmer than usual, with a first frost on June 24th followed by nights around 10 or greater.
On 6-11-04 the big Cycas canalis began to flush, with 26 leaves. A month later the big C. 'kennedyana' flushed with 12 leaves, & a second group of 11 three weeks later. By then the leaves from 2003 were very tatty, & my wife culled them. My largest C. maconochiei was leafless over winter & must have got more rain than it liked, as the central site of its summer leaves rotted out, but in late December '04 it started to flush, with a reduced total of 8 leaves in 3 groups around the base of the trunk. In early June these leaves were starting to whiten, so I put the pot in a totally dry spot in the middle of my largest shed. On 8-1-05 the C. arnhemica started to flush, adding 4 new leaves to the 3 (still perfect-looking) from last year. By late June '05 the 3 old leaves were looking a bit tatty, but probably good for another year.

Palm Nomenclature : Name changes have been widespread among Australian palms this year. Dr. John Dowe, once curator of The Palmetum at Townsville, & now at the Australian Centre for tropical Freshwater Research at James Cook Uni., Townsville, describes many of the results in 2004 Palms & Cycads issue 85:pp.18-24. He summarises the next 3 references I give, in his article. Baker et al., 2003, in Kew Bulletin 58: 351-370, revised the Calamus aruensis complex in Australia & the Pacific. The result is that 'the species known as C. aruensis on Cape York remains unchanged, but the species formerly known as C. hollrungii & distributed from Cape York to Dunk Island should now be referred to C.vitiensis.' C. vitiensis is widespread in New Guinea, the Solomon Islands, Vanuatu & Fiji. Baker & Loo 2004, in Kew Bulletin 59:61-68, looked at the closely related genera Hydriastele, Gronophyllum, Gulubia & Siphokentia, evaluated morphological & DNA data, & merged the latter 3 genera into Hydriastele. Thus Gronophyllum ramsayi became H. ramsayi, & Gulubia costata became H. costata.
Dowe & Jones in 2004 Austrobaileya 6:979-980, changed the names of 2 Livistona taxa. Livistona decipiens, a common ornamental species but much reduced in the wild (Miriamvale to Townsville)due to land clearing for sugarcane, was originally named as decipiens by Beccari in 1910, from a cultivated plant in France. An earlier description by Bull, as Corypha decora in 1887, was overlooked. It now becomes L.

decora. The Livistona species named L. mariae var. occidentalis by Rodd in 1998 was then poorly known, but has since been well studied in the wild (in the Kimberleys) & in cultivation. It is now clearly a valid species separate from L. mariae, & they have named it L. nasmophila. Dowe has nice photos of the palms he mentions.

John recently commented to my colleague Kris Kupsch, leader of the Rainforest Study Group, that the use by some N. Qld. researchers & nurseries of the name Calyptrocalyx sp. Mt. Lewis is totally invalid. I had raised the question, & had no firm position on the correct placing of the 'single-stemmed Laccospadix australasica' as I had never seen it in flower or fruit. The red new leaves of the alleged Calyptrocalyx would appeal to palm marketers, as the Papua- New Guinea genus Calyptrocalyx contains many attractive species with red new leaves. This trait also occurs in the much commoner multi-stemmed L. australasica. I have the impression that the single-stemmed form is harder to grow than the clumper, but my single-stemmers are younger. Both are understorey palms & like lots of water, & hate hot dry winds. Laccospadix was once included in Calyptrocalyx, prior to 1928. Dowe listed differences between the genera as follows :

Calyptrocalyx flowers have versatile (free) anthers which are attached dorsally to the to the connective, & the 2 inflorescence bracts are attached adjacent to each other at the base of the inflorescence stalk (peduncle).

Laccospadix flowers have non-versatile anthers which are basally attached to the connective, & the 2 inflorescence bracts are attached remotely to each other, one at the base & one about 1/3 along the peduncle.

John also commented that Howea & Laccospadix might well be merged when DNA tests at Kew are completed, as they only differ morphologically in Howea having solitary stems & seeds with homogeneous endosperm, while Laccospadix usually clump & have seeds with ruminate endosperm. Several genera, such as Dypsis, have members that differ in these traits, & others.

Cycad Articles : The 2004 issue of Palms & Cycads no. 85, 4—16, contains a well-illustrated article by Paul Forster on Macrozamia fraseri, 'the giant "woolly" cycad from the kwongan (sand plain heath) of south-west Western Australia.' He gives many images of coning plants of both sexes. M. fraseri (sp. Eneabba, sp. Jurian Bay) & M.dyeri from near Esperance east to Israelite Bay) are both large cycads split from the smaller M. riedlei by Ken Hill in 1998. Forster quotes David Jones that some workers with Macrozamia believe more W.A. species could be considered in this group. M. fraseri is a stout cycad with caudices to 1 m thick & 3 m tall, with past reports of specimens to 5.5 m tall. Forster's photos come from a mass-coning event in spring 2004, & these usually occur about 2 years after fire.

The May 2004 issue of 'Australian Horticulture', pp. 48-50, contains an article by Julia Berney on M. eneabba, which is what David Jones is thinking of calling the Eneabba form of M. fraseri. This article also contains a report on transplanted M.'eneabba' & M. riedlei by Tom Gordon of 'Grasstrees Australia' nursery. Tom charges $500 per m of height for his eneabbas.

Paul Forster had an article in 2004 Palms & Cycads no. 82: 4-28, titled 'The Cycads of Queensland – Diversity & Conservation', with photos of most of the 42 taxa (40 species & 3 subspecies) currently recognised. 'It is likely that very few taxa remain to be recognised for this region, with three additional species of Cycas awaiting description & formal naming.'

Ken Hill in 2004 Telopea 10: 607-611 had an article on Cycas candida, 'a new species from Queensland, together with an extension of range & amended description of Cycas yorkiana.' C. yorkiana has now been found in the Cape Melville N.P., & conservation-wise is now considered not at risk. His map of the distribution of all Qld. Cycas species is his Fig. 2, below, while his Fig.1, below, describes the morphology of some parts of C. candida. C. candida is found in the Rollingstone district, and 'a substantial part of the population is conserved in the Mount Spec National Park.' It is closely related to C. cairnsiana, & in subsection Cairnsianosae of Hill 1998, which also contains C. ophiolitica & C. megacarpa. 'The latter has been previously placed with C. media in series Endemicae (Hill 1998) on the basis of green leaves & broad flat leaflets.' C. candida differs from other Australian species by the openly keeled leaves with green 'leaflets with recurved margins, the soft cataphylls with thick orange tomentum, & the waxy white seeds.' The soft cataphylls & narrower leaflets & white ovules & seeds distinguish it from the superficially similar C. media. The habitat is grassy woodland on gritty sandy soils on steep slopes with granite boulders. Like most other Qld. Cycas, it will need excellent drainage in cultivation.

A Courier Mail (Qld. newspaper) feature on the explorer & botanist Ludwig Leichhardt commented on the plant specimens lost when 4 of his packhorses drowned in the Roper River near the end

of his Port Essington trip. Among the lost specimens was Cycas desolata, found by expedition member John Gilbert in May 1845, & not formally named by Paul Forster until 1995.

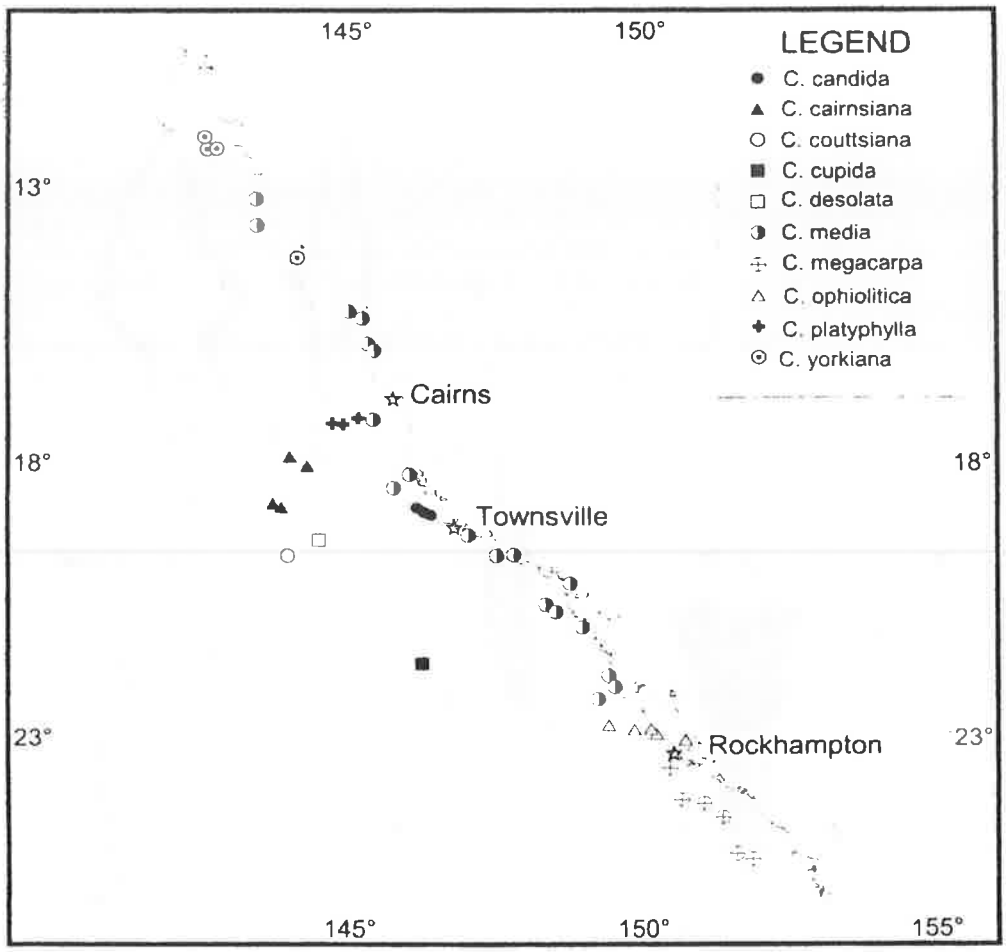

Fig. 2. Distribution of *Cycas* species in north-east Queensland: *Cycas candida, C. media, C. platyphylla, C. cairnsiana, C. couttsiana. C. desolata, C. cupida, C. yorkiana.*

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Fig.1., below, is from Ken Hill 2004, Telopea 10(2):607-611, mentioned earlier, & Fig. 2 on page 3 is from the same paper.

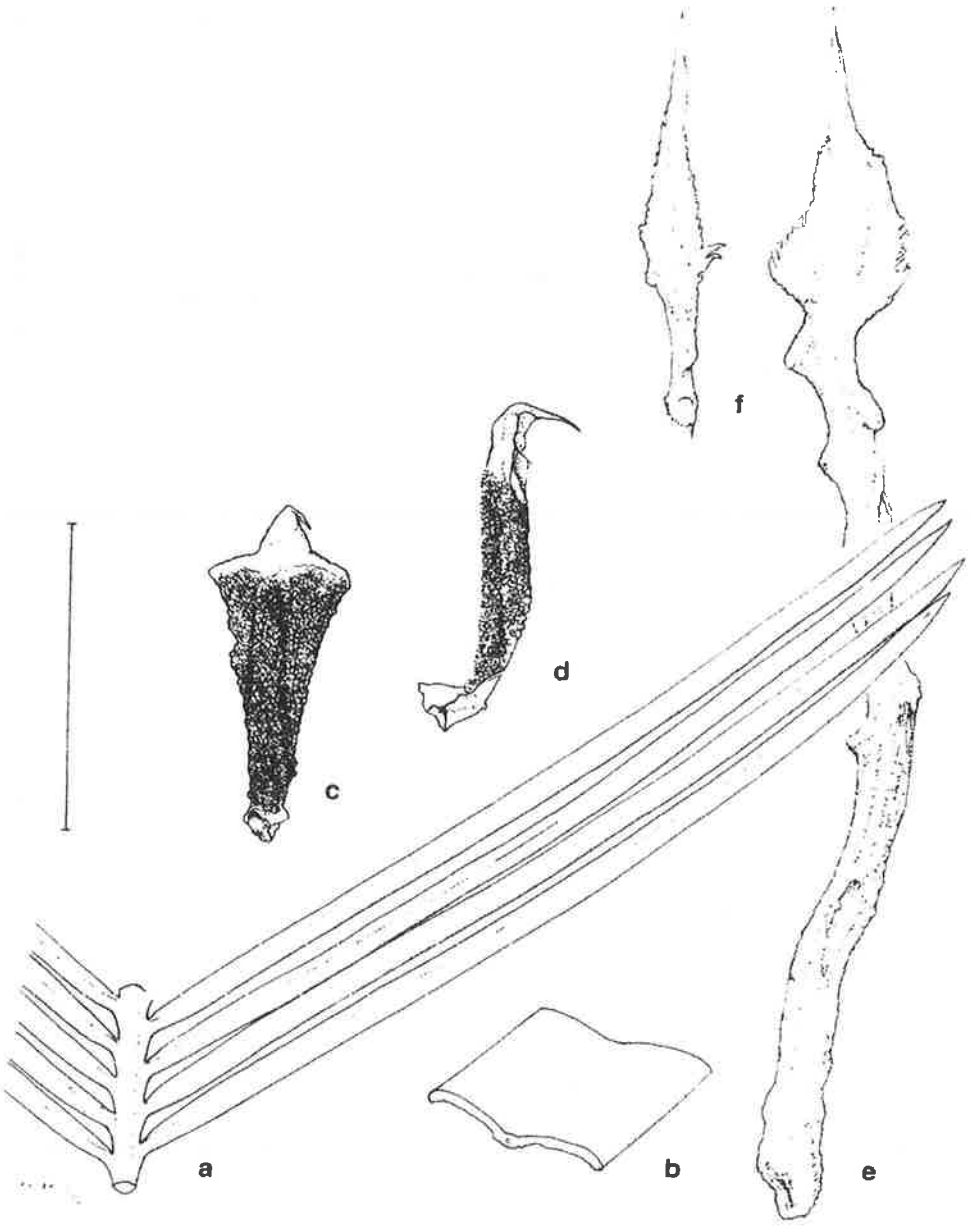

Fig. 1. *Cycas candida*. **a,** part of leaf; **b,** section of leaflet; **c, d,** microsporophyll; **e,** megasporophyll with stipe; **f,** tip of megasporophyll (a & b from *Hill 5671*, c & d from *Hill 5674*, e from *Hill 5672*, f from *Hill 4827*). Scale bar: a = 6 cm; b = 1 cm; c, d = 4 cm; e, f = 6.6 cm.