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INDIGENOUS CYCAD/ZAMIAD AND PALM STUDY
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Well friends, here we are June once again and subscriptions are now due. The fee is now $5.00 and I did hold it back until June. Our numbers have dwindled somewhat since last year, but new members have also joined.

This is a big first in cycadale year, as the 2nd endangered species conference on our plants is due 22nd July at Townsville, presuming you read my paper on the subject last newsletter. Next big thing is that the Palm & Cycad Society of Australia brings out my booklet "The Genus **Cycas in Australia**", hopefully early July. I am encouraged by seeing the preview of some of it and if it is as good as I have been promised, it is worth the wait. Quite a few active members are mentioned and some of their photos are included. Further to this ASGAP was to have re-published an updated version of Australian Plants Vol. 13 No. 101 and I do hope they no longer delay as there is ample room for the two books. Incidentally up to 6/6/90 we have now only 18 members 1990 financial out of 44 members.

CRY FOR HELP

We need a member required to help with the formation of, or assistance to the Palm section of this group. I am willing to still run it, if wanted, but need palm articles for it. Unless it happens it will be Palm in name only in this mainly cycadale group.

.../2

Year of the "Blues"

No, not a switch to the pro-jazz era, but a little scenery re the blue cycas that now seems to predominate this genus of Australian plants.

Newest and by far the most interesting the new Pine Creek spp. about to be called Cycas conferta (CHIRGWIN). Nestling in three colonies outside Katherine, NT. this lovely species is quite different and extremely attractive. The rachis and pinnae appear sky blue in photos, but I am assured the close-up colour is sea-blue or blue-green. The pinnae are crowded on each rachis, and mature fronds are thornless on the petioles. Large granite boulders are in the areas and they appear peculiar to that place only.

Two further "blues" not yet named officially are Glen Idle of Chudleigh Station and Blue Surprise of Mt. Surprise. The first or deep red basaltic soil for the most part and the latter on granitic country on a gemstone mountain. I have seen some of the former reported to be gigantic height and a lovely blue. However, Blue Surprise" has a blue lustre of a vividness to beat the rest. As I write this Irene Champion is holidaying up amongst it once again.

THE GENUS CYCAS IN AUSTRALIA

By L.P. Butt

The mere fact that the cycadales are in most cases very palm-like in their physical appearance, places them as being allied to the palmae and through commercial eyes perhaps secondary to that plant group. Nothing could be actually further from the real truth, as there is no close relationship between the families, Cycadales being GYMNOSPERMS (non-flowering) and Principles (Palms) being ANGIOSPERMS (flowering). It has always been my considered opinion that even the present cycadaceae are more allied to the great Filice (fern) family than to most other botanical groups.

The very first plants with their characteristics the PALEOZOIC seed-ferns have given us a brief but undeniable record of this from leaf impressions and fossils of that ancient era. Their very first given name, the Cycadofilicales indicates a combination of cycad and fern characters. The leaves of these ancient forms were so identical to that of ferns that botanists called the era the age of ferns until it was found that most of these belonged to the seed-fern family (CHAMBERLAIN) 1919...

As the ages past, the Mesozoic era gave us the Bennettitales of which very little is really known, especially about their reproductive systems. The present day cycads should always correctly be spoken of as the cycadales and not as cycads unless referring to the cycas which is the only ~~species~~ genus in the ~~genus~~ family Cycadaceae.

Some similarities to the fern group is obvious because there parts are so named. In Cycas we speak of the new leaves and leaflets newly erupting circinately as in ferns with their apices curved inward. We speak of sporangia a fern term, and of the leaves as fronds.

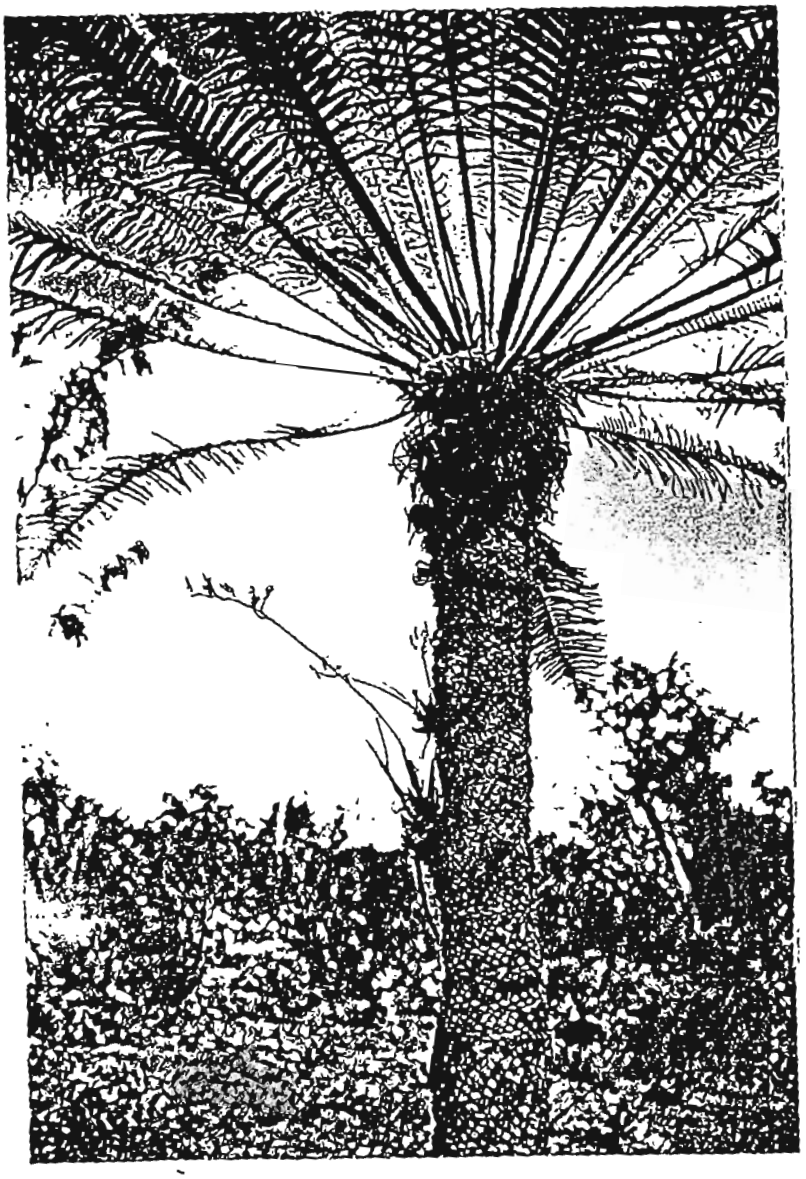
The fact that modern cycads also did exist at length along with the giant saurians of our Girassic era leaves the theory open that possibly they were part of the food used by herbivores of these giant reptilian creatures. The starches and sago obtained from the caudices of some types have been used from the Western Australian species M. reidlii. The sago from Cycas revoluta and cycas circinalis (two exotics), is still used today. However, modern thought has placed it as possibly being carcenogenic to humans over long periods.

Native peoples seem immune, but the european community can develop dangerous health symptoms if the sago is eaten over a long period of time.

There are also a lot of stories circulating from earlier times that they sex "switchers", being able to change their sex when propagative survival is warranted. These stories have never been really substantiated by taxonomists delving into the culture of these plants so it must be accepted that these statements probably have no known truth.

COMMON PESTS AND DISEASES HARASSING AUSTRALIAN CYCADACEAE

HOMO SAPIENS - Aboriginal man learned long ago to live with and benefit from the cycadales. However colonising man will always destroy what effects his livelihood. India is not the only place where the cow is sacred.



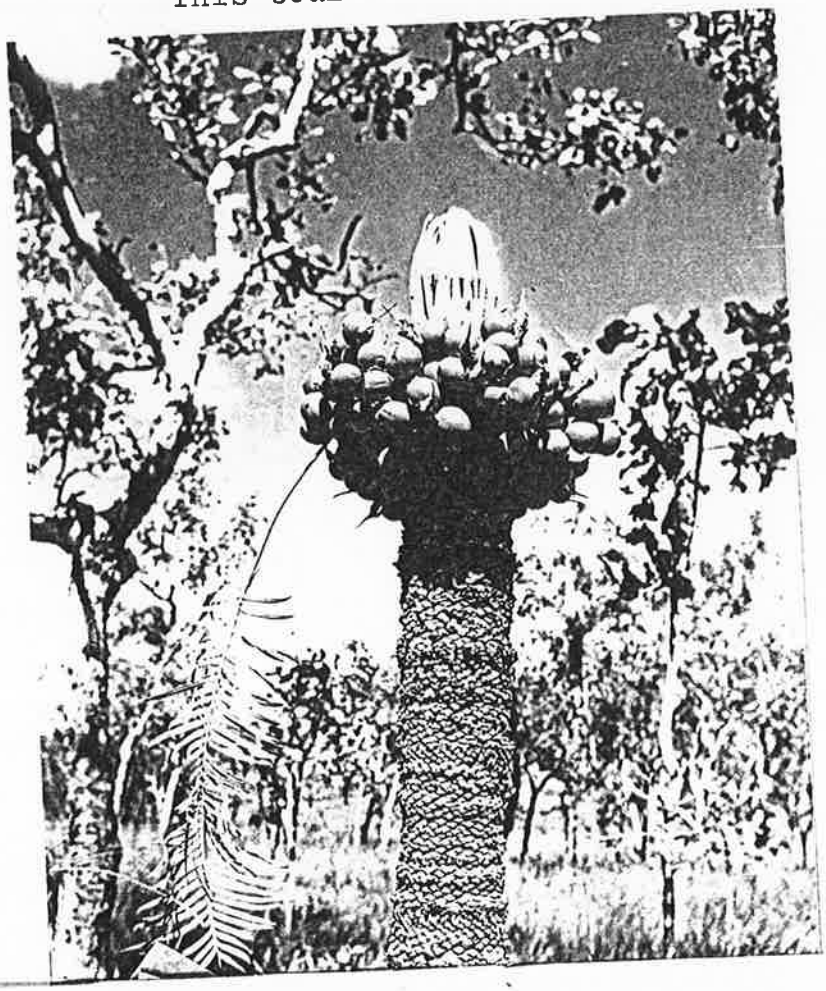
c.BYNOE/COX - spp. Host to orchid Den. affine. N.T.

SOLUTION - Fencing off affected areas from station stock. However, as most losses are scrubber wild cattle this is time consuming and difficult. As explained elsewhere export benefits from bi-products of our cycads are many and varied.

2. SCALE INSECTS (especially with cycas in cultivation). A dark brown female scale covers the underside and rhachis of even small seedlings. White Oil, applied after scales are removed with warm water and a rag.

3. In some reas, small grubs appear and eat large sections of pinnae and young fronds. Grubs from a small brown moth have been seen.

4. Small hard shelled beetles roughly 2mm by 6mm very dark brown in colour found emerging from sporophylls and apex crowns of many cycas. They eat sporophyll pollen and young pinnae. SOLUTION - In cultivation, use CARBARYL with a wetting agent. Prof. Pant in his book on the cycadales, suggests similar beetles seen in India not only consume pollen, but also act as pollinators to the female cycads. This could well be so here in Australia.



Newly emerging fronds & mature seed. BYNOE/COX penninsular species N.T.