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CYCAD & ZAMIAD STUDY GROUP

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Dear friends,

Xmas once more, and happy growing to you all! Special greetings to all active members I have been associated with this year. On a happy note the "Australian Plants" December issue, which I believe we are due for about January '85 does include much of my book "Cycads of Australia" and some photos from the study group. Unfortunately not nearly enough of these were used.

As you well know this was written about 1981 so we have advanced in knowledge since then as I have tried to unfold with your help in past newsletters.

Not nearly enough has been covered on Cycas or on Bowenia, so this newsletter is basically on the latter genus.

Again happily, I am grateful for the notes and keys of L.A.S. Johnson, Sydney Herbarium and the germination notes by Merv. Hodge which are included in the "Cycads of Australia" which you will all receive as members of S.G.A.P.

- Len Butt

Re: "Cycads of Australia"

I would like to dedicate this booklet to Dr. John Maconochie whose sad passing this year was a blow to all cycas lovers.

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Rambling among the zamia ferns

Bowenia spectabilis (Hooker 1863) is perhaps the most variable of the two species of *Bowenia*. I would really love to be among the exotic zamias in Florida to examine if variability occurs there as it seems to do here in Australia.

I have had many reports of marked differences in the structure and even seed of many of the species of cycadaceae and zamiaceae occurring here in Australia. Botanically it seems these variations do not warrant varietal names, but in the case of *Bowenia*, sometimes the differences are quite pronounced.

The description given of the typical *Bowenia spectabilis* in 1863 as I found it at Mission Beach in 1984. My specimen as follows:-

Caudex subterranean, 30 cm diameter at stoutest part passing into an elongate tuberous tap-root. Its crown bearing fronds to 60 cm in length. Fronds erect with spreading branchlets on each frond, these rhachides being in a fan fashion at the apex with several corallaid roots at ground level. Generally it is extremely difficult to remove a caudex without damage to the narrow base. However in this instance the plant was recovered entire no apparent damage and very little digging.

My plant came from private property at Wongaling Beach approximately $\frac{1}{4}$ mile by old reckoning from the actual sand beach. Growing as understorey material among Johnston River couch grass, the seedlings here are regularly mowed off about every few months, but larger specimens have been left to develop where they occur near stands of the main indigenous palm *Licuala ramsayii* and the climbing palms, *Calamus motii*. Even on this one property the variants among this species were very evident, ranging from long very narrow pinnules to about 10 cm in length to falcate - lanceolate pinnules to about 5 cm in length. As in all the species the pinnules are glossy and entire on all edges.

Seed from the narrow forms is smaller than those on the falcate types, but female cone - cases observed were approximately the same size in all forms. Female cones sub-sessile, oblong-globose and rounded at the apex.

Male cones on short stalks, ovoid, about 75 cm in length. Cones in both sexes erupting from the ground close to the coralloid roots.

To quote Dr. L.A.S. Johnson (Quote)

Bowenia is a distant genus among the Zamiaceae and has not been confused with any other. It possesses more advanced features than the other Australian genera and appears to be related to such American genera as Zamia though some of the resemblances may be due to parallel evolution or convergence (unquote).

How right this really is! In fact I would go further and say that in my opinion the relationship to American zamia is so marked as to place the Bowenia as being the nearest botanical cousins to zamia, along with perhaps the Stangeria of Africa.

Keys given with Bowenia spectabilis are Pinnules entire or a few of them irregularly lacerate Caudex elongate, with up to 5 frond bearing main branches. N.E. Qld.

The rhachis in both of the Bowenia develops branches, and although I have seen very large specimens of Bowenia serrulata at Stoney Creek near Byfield none can compare with the huge old specimens growing in the grounds of Paronella Park at Innisfail the great branches of each rhachis towered above me, and each rhachis divided into several rhachides. The pinnules were nearly 30 cm in length.

In conclusion a few words of thanks to Margaret Telfer, Brian Runnegar, Mrs. F.B. Bosworth, Don Stallard, Merv. Hodge, Dr. George Long, Dom Arien, Noel McCormack, Dr. L.A.S. Johnson and Bill Payne (for encouragement). This booklet is not yet finished, I intend working and writing with the cycadales until I can write no more.

- Len Butt

fees now due