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STYLIDIUM STUDY GROUP NEWSLETTER No. 12, November 1983

1. Propagation.

I am pleased to be able to report that further progress has been made in propagation from leaf cuttings. S. caespitosum, S. corym--bosum, S guttatum and S. spathulatum have been struck, using the same conditions as in N/L No. 10, except that "Growool" was used to set the cuttings im. "Growool is a glass fibre type material (horticultural rockwool) produced by Bradford Insulation Industries to replace the various conventional propagating mixes. John Philp has had considerable success with this material and is prepared tp supply small amounts for trials. The "Growool" is only available normally in commercial quantities at present. Plant material was taken in late July, and specimens sent from WA. have also been struck. The latter is good news indeed, since it further reduces the need to lift plants from the bush; leaves, properly selected, may be adequate.

Experiments are also under way in WA on tissue culture. At present this is in the very ealy stages, and is being done as a commercial venture. Tissue culture requires rather specialised conditions and equipment, and some degree of commitment to be successful. At this stage I would not recommend it for the average enthousiast.

Many self sown seedlings have been appearing in my stock pots over the past few months, and these are being potted up steadily. The S. hispidum (ciliatum?) seedlings mentioned in N/L 11 have also been potted on but with considerable losses.Many were quite large and it may be that they were too old, as some very small seedlings with only one or two sets of true leaves have survived the potting on. In fact, I am wondering whether it is better to pot on Stylidiums when very small, say with only 2-4 sets of leaves, rather than leaving them to get big enough to handle comfortably. Tiny plants only 2-3 mm. high may have roots 2-3 cm. long.

The stock pot which contained the supposed hybrids of S. ciliatum and S. piliferum contained 100 seedlings: not one of them was of the same type as the plants in the pot. This supports the idea that the plants are hybrids, since hybrids do not normally set much viable seed. And I womder how much seed missed the pots and fell on the ground? I am experimenting with a potting mix that contains up to 40% by volume of "Hortico" potting mix. So far there has been no adverse reaction.

My early experiences with organic matter in the growing mix suggested that Stylidiums would not tolerate organics. However, several growers have reported success, and the important factor may be pH rather than the presence of organic matter. The indications are that low pH (acid) conditions may be undesirable.

2. Horticulture.

Alvina Smith of Tynong North orts that S. spathulatum, S. lineare, S. crassifolium, S. diversifolium and S. caespitosum survived the drought in the garden. Losses included S. dichotomum, S. adnatum, S. assimile and S. fasciculatum.

Keith Alcock notes that his garden bed is progressing well except for some losses around the base of the mound where he thinks the ground may have been too wet durint the Winter.

Max McDowall notes that S. crassifolium in the garden seems to be less vigorous each year after a good start. Both Keith and I have found that the plants increase in vigour each year.

I have been planting fairly extensively in the garden to test summer survival. There have been a number of losses due to crows pulling out the plants, especially rosetted and creeping species such as S. corymbosum, S. breviscapum and S. bulbiferum. The birds have also damaged many other plants, including Isopogons and Petrophiles 6-8 inches high. I have planted replacements but I suspect it is too late in the season and the plants will not have time to put down adequate roots to survive the summer.

3. Botany.

I have received a newspaper cutting from the "West Australian" of 18 June 1983, about the Wongan trigger plant, S. coroniforme. This species was described by Erickson and Willis in 1966 and was regarded as very rare and on the endangered species list. Work is being done at Murdoch Univ. on tissue culture from seedlings grown from seeds obtained by hand pollination of 'captive' plants. Re-establishment of plants in the wild with the results of this culture is being considered. However, a recent discovery of about 1000 plants, several kilometers from the type locality has improved its chances of long term survival. The new find is on crown land, so just how safe they are is anyone's guess.

S. graminifolium.

One of the forms of this species that I reported on in N/L 10, and which was so different from the others, has appeared again. I was recently shown a specimen the same as my thick leaved plant that I thought might have been a tetraploid. The plant was said to have been grown from seed collected on Wilson's Promontery, "almost at the water's edge". I had just about decided, before this, that the plant was var. grandifolium from Tasmania, though I have never seen a genuine Tasmanian specimen, and have been unable to obtain guaranteed Tasmanian seed. This needs further investigation, but I think there is no doubt that this material represents an undescribed form or perhaps a new species. In the meantime I will have to try to see the Wilson's Prom. plants and some Tasmanian.

Leafy Stemmed Species (WA)

The rhyncangium group (beaked capsules) contains four described species. These are S. rhyncocarpum, S. fasciculatum, S. falcatum and S. adnatum. According to Erickson, S. rhyncocarpum occurs in Jarrah woodland and has flowers in a sessile cluster at the top of the scape. S. falcatum is said to grow in thick, shady undergrowth among Jarrah near granite rocks in the Albany area. Its inflorescence is a simple spike with a glandular hairy scape up to 12 cm tall. Another distinguishing feature is the stigma, which in S. rhyncocarpum is finger-like and brush tipped, while that of S. falcatum is round and cushion-like.

Carlquist observed a leafy stemmed species in the Tutanning Reserve and called it S. falcatum. Material from that location has been found to have flowers in sessile clusters and finger like, brush tipped stigmas. The very short scape which develops as the flowers open is glandular hairy.

Near Denmark is found a leafy stemmed species with dark stems which we have always regarded as being S. rhyncocarpum. It too has flowers in sessile clusters and a finger like, brush tipped stigma. The two plants are dissimilar in appearance, but not widely so. The Denmark species occurs on granite hills, in fairly bush, in association with S. pritzelianum. The Tutanning plants flower (in Vic.) in October-November, while the Denmark plants flower mainly in December. Despite the differences in habitat and flowering time, are these two plants both the same species, since both key out to S. rhyncocarpum?

The situation is further complicated by the presence of a leafy stemmed species in the Stirling Range, in fairly dense scrub, which appears to be an undescribed species. It is fairly close to S. falcatum but the scape is glabrous, and the Stirlings are rather a long way from Albany. The most recent collection of S. falcatum appears to have been that by S.H.James (UWA), in 1977, from Mt. Clarence, Albany, Identity of that collection appears to have been established.

It seems unlikely that the same species would occur both in the Tutanning Reserve, which is relatively dry, and in forest at Denmark, a relatively high rainfall area. It also seems unlikely that the Tutanning species is S. falcatum, unless Erickson's description is wrong.

Perhaps we have six species in the rhncangium group, or five species and a variety.

RICHARD DAVIDSON, Stylidium Study Group.