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PROPAGATION.

Fairly quiet on the propagation front , no further reports of work with leaf cuttings over summer. I put in some seed in November to check Spring germination, and only one species out of seven germinated. That species was supplied as S. hispidum, but I think it is probably S. ciliatum, judging by the rosettes and leaf characteristics. The seed was from thensame source as previous lots(Nindethana) so the material should have been viable, as Autumn plantings germinated fairly well. I have no explanation for this failure to germinate.

I have recently put in cuttings and rooting offsets of a number of species, and those have been put into a cold frame which gets much more sun than my usual frame. The results so far suggest that there is not much difference in performance. One species which is difficult to strike is S. rupestre; even well rooted offsets do not have a good strike rate.

more cuttings and some leaf cuttings will be put in this month, together with some seed.

HORTICULTURE.

Keith Alcock has embarked on an ambitious garden project, in which he has prepared a sandy mound on sloping ground and planted out a variety of species, trying to select appropriate positions for each. I hope to be able to report on the results later. Ihave also planted some material in the garden; in my case, the local soil was mixed with sand (concretimg), again, reports in future N/L's.

Last year's plantings in the garden met with mixed results. Two out of three S. ciliatum died over summer, possibly from too much water. All three S. crassifolium disappeared completely but are now all shooting. S. piliferum and S. breviscapum(white) both died,(1 each). S. adnatum and S. scandens are thriving as are several local (Stawell/ Mt. Doran) graminifolium. S. repens has reappeared after being "lost", and several S. uniflorum have done likewise. Two specimens of S. dichotomum are healthy, while a third died.

Most of these plants have full sun for part of the day, with shelter usually later in the day. Watering over summer has been a thorough soak every 1-2 weeks; most of the plantings of a range of genera were made in the autumn and did not really get properly established because of the drought. Regular watering was thus necessary over summer.

In the previously established sand bed, notable survivors have been S. dichotomum, S. adnatum, S. spathulatum, S. guttatum, S. caricifoium S. corymbosum and S. caespitosum. S. repens and S graminifolium (Stawell) did not survive.

In N/L 10 I referred to S. limbatum and S. glanduliferum; these should have been the other way round. S. glanduliferum is the one still alive, and is now provided with a new set of leaves, but is still flowering on the old stems.

The dry country rosetted species, which included the pink/yellow/apricot flowered plants seem to resent either summer water and/or being kept in an active growth state during summer. As the autumn rains began several apparently healthy plants died off, but since similar performance last year ended in new rosettes being produced from the wreckage, I'm leaving them and hoping.

My potted specimens of S. productum are giving cause for concern. All are showing signs of deficiency in that the leaves are going yellow and pink. Since thee species comes from sandstone, it may be that my sand mixture lacks either trace metals or acidity. This aspect needs to be investigated.

A specimen of S. diversifolium, in a mix that contained aged pine bark, sand,lignapeat and scoria, together with Osmocote(9 month), pot. sulphate and trace elements, developed yellow leaves. I transplanted it into my own sand mix and it greened up very

quickly. The species usually grows in sand in WA, so perhaps it is relatively intolerant of some component of the above mix. On the other hand, S. caespitosum seems to be quite happy in the same mix. This species tolerated a period of drying out better than the same species in my sand mix. S. caespitosum is often found in swamps, so may be better adapted to acidity and organic matter.

Bernard Dixon has grown a number of species in Perth and finds that most of them only last one season in the garden, but seem to be much hardier in pots. He uses the local grey sand for his potting mixture.

I have had some success in obtaining seed from known habitats, and will start a small scale set of experiments this year, if germination occurs. There is also enough seed that we can test viability over long term storage.

STOP PRESS. Ihave just observed (5/5/83) that two species of seed sown in November have germinated. S graminifolium (montane form) for the first time, and S. hispidum (ciliatum), a second crop. I have had this happen before; it may be that Autumn is the best time to sow seed.

BOTANY.

S. spathulatum. This group contains several forms and perhaps several species. The plants are characterised by hairy, spathulate leaves. Three recognised varieties of S. spathulatum (Carlquist) are var. spathulatum ("typical form"), var acuminatum (pointed calyx lobes and leaves) and var. glandulosum (linear leaves): the form is lehmannianum, said to have much smaller stature than the others, and considered by some to be a response to growing conditions. A related species is S. lineatum, which has more rounded leaves, more prominent throat appendages and longer calyx lobes. The collection contains a number of plants referable to S. spathulatum as follows.

	Leaves.	Rosette type;	Scape	Comments
1.	50x20mm, glandular hairy boyh sides.	open, upright, spreading.	several from base, hairy at bottom only.	var. spathulatum. pollen lilac
2.	30x10mm, white non-glandular hairs.	ditto	ditto, with both types of hairs	pollen yellow.
3.	18x4mm white non-glandular hairs.	ditto, and with stemmed offsets.	glabrous, one from each rosette.	pollen yellow
4.	25x7mm yell. gland. hairs both sides.	as 1. with stemmed offshoots.	as 1.	pollen lilac.
5.	35x6mm sparse yell. gland. hairs, top surface.	flat; spreading.	many scapes from each rosette, red tipped gland. hairs at base only.	pollen lilac.

Not all the species are as variable; S. ciliatum and S. schoenoides seem to be very stable. S. leptophyllum in the type form is uniform but the similar S. dichotomum varies in both flower colour and leaf form. The botany is becoming as interesting as the horticulture, but as far as I am aware, the genus is not under active review by any of our Herbaria.

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