(III)

OCCURRENCE OF POLYEMBRYONY IN *HUMBOLDTIA DECURRENS* BEDD. *EX* OLIVER (FABACEAE-CAESALPINIOIDEAE), A RARE ENDEMIC TREE SPECIES OF SOUTHERN WESTERN GHATS

Humboldtia decurrens Bedd. ex Oliver (Fabaceae-Caesalpinioideae) is a small evergreen tree, highly endemic to the southern Westhern Ghats. In the revision on genus *Humboldtia,* Sanjappa (1986) confirms the distribution of this species as restricted to southern parts of the Western Ghats in the hills of Travancore and Tirunelveli. The shape and size of tree, the drooping nature of the juvenile leaves and beautiful flowers make the species a highly potential candidate for introduction to horticulture. Recently the authors, while studying germination in the seeds of *Humboldtia decurrens,* could observe polyembryony.

Polyembryony is the phenomenon of occurrence of more than one embryo in a seed, resulting in the development of more than one seedling from the same seed (Maheshwari, 1974). This has much application in Plant Breeding, Horticulture and Conservation studies.

Seeds of *Humboldtia decurrens* were collected during March 2002 from trees grown at Tropical Botanic Garden and Research Institute campus. Out of the 20 seeds sown, only 5 germinated and one produced twin seedlings which is due to polyembryony. Growth performance was recorded for 60 days at the nursery (Table 1).

Among the twin seedlings one showed a retarded growth as compared to the other. But normal seedlings were more vigorous than twin seedlings (Figs. 1 and 2).

Polyembroyony is here first reported in the genus *Humboldtia* though several earlier reports in many other plants exist viz., *Aegle marmelos* (Yadav *et al.,* 1990), *Bambusa arundinacea* (Sudhirkumar *et al.,* 1995), *Bauhinia purpurea* (Philomina *et al.,* 1995) and *Pterospermum acerifolium* (Kumar *et al.,* 1977).

Table 1

Seed germination in Humboldtia decurrens (performance after 60 days)

Character	Normal	Twin seedlings	
		Seedling 1	Seedling 2
Root length (cm)	10	9.0	3.5
Shoot length (cm)	6.5	5.5	4.0
Number of leaves	4	6	4

Fig. 1

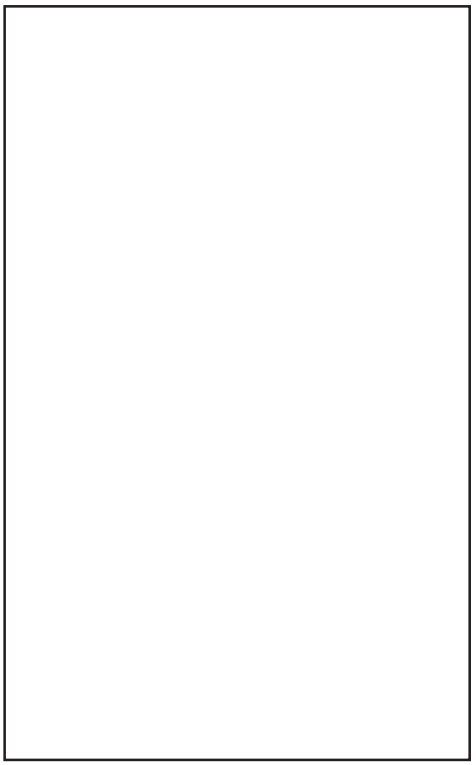
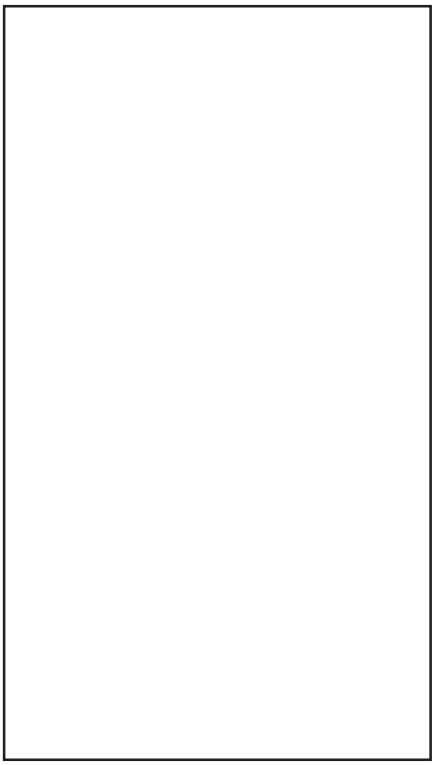


Fig. 2



Polyembryony in *Humboldtia decurrens*
1. Twin seedlings; 2. Normal seedling

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