

# ***Carallia brachiata* cv. Honiara, a Beautiful Fastigate Ornamental Tree**

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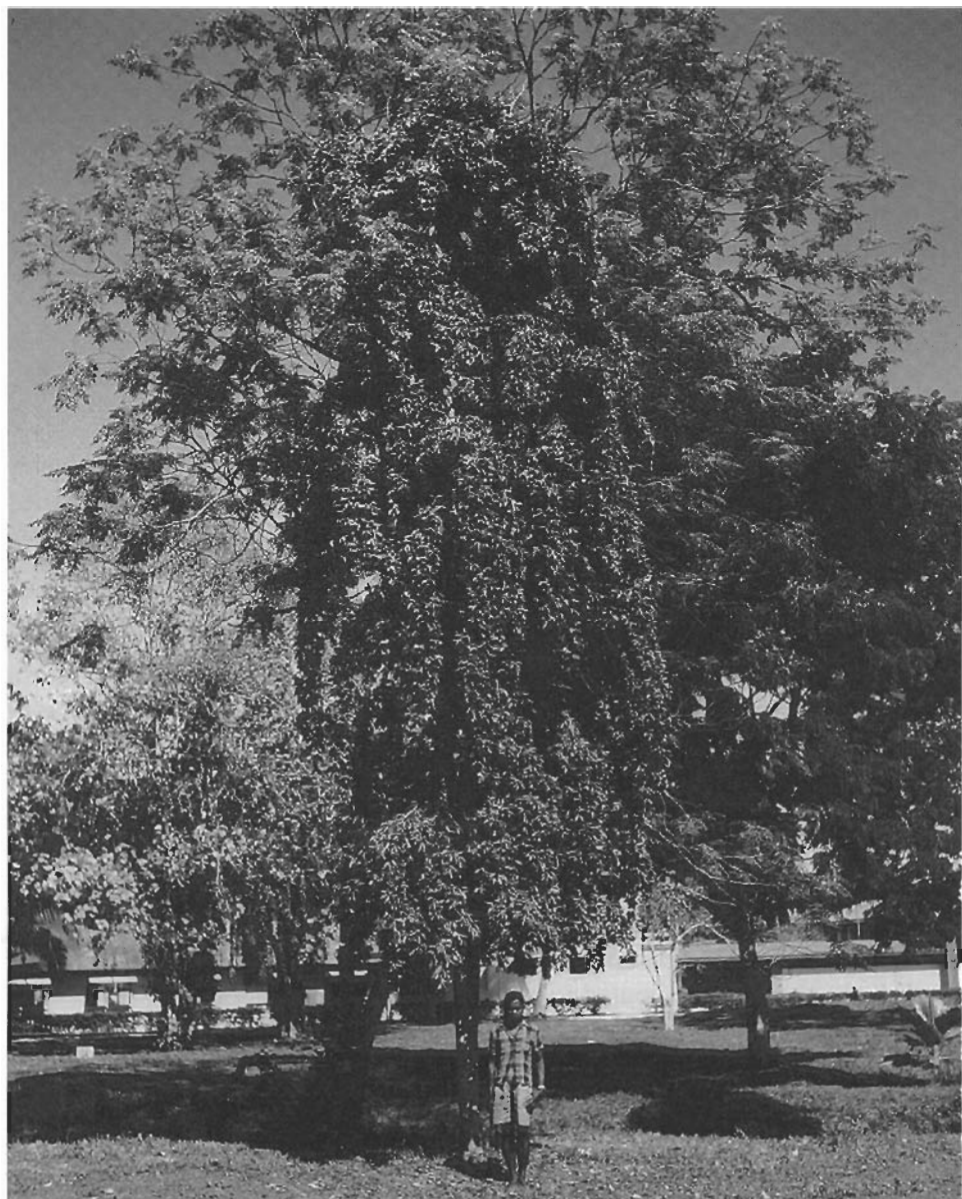
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*Carallia* is an inland genus of the mainly mangrove family Rhizophoraceae. The genus extends from Madagascar to the Solomon Islands and has *c.* 10 species (Hou, 1958), eight of them in Malesia. *Carallia brachiata* occurs throughout the Asian range of the genus. It is a common, but never abundant, rather nondescript tree of lowland tropical rain forest, reaching 50 m tall.

In a few villages of the Solomon Islands and in the capital Honiara there occurs an exceptionally beautiful fastigate form of *C. brachiata*, with weeping limbs and the crown shape of the Lombardy Poplar (*Populus nigra* cv. *Italica*) of Europe, see Fig. 1. This form reaches 18 m tall and 25 cm bole diameter but is usually smaller. Numerous fruits are produced at frequent intervals and germinate easily.

The trees planted in Coronation Gardens, Honiara, came from Auki District, Malaita, where the form is reputed to occur wild. A tree seen at Lodomae village, north Kolombangara, is reputed to be grown from Choiseul seeds.

Several attempts to export this fine tree by G.F.C. Dennis, doyen of horticulture in the Solomons, have all failed. But of 25 seeds from a tree in his garden in Honiara, collected on 2 February 1986 by one us (TCW) and planted in Singapore on 12 February 1986 by WYK all but one germinated between 7 March and 28 March 1986. From this batch of seedlings six trees have now been planted out along Cheang Hong Lim St. and twelve trees along Cross St. in the Central Business District of Singapore, on very poor compacted soil. These were 8 m tall in July 1994, (Fig. 2) and they bore copious young fruit. Three previous attempts to germinate seeds from separate fruitings failed, but recently the Singapore Botanic Gardens managed to collect seeds and germinate them successfully. The seedlings are now being nurtured for planting out at a later date.



**Fig. 1.** *Carallia brachiata* cv. *Honiara* in Coronation Gardens, Honiara, Solomon Islands, 1964, with John Sore.

Herbarium specimens of this form are identical to typical *C. brachiata* and in his *Flora Malesiana* revision Hou (1958) gave it no taxonomic recognition. We believe this elegant fastigate tree has high potential as a wayside tree, and that now a small population exists in Singapore, the form should be grown as a superior replacement or supplement to the other introduced fastigate tree *Polyalthia longifolia* cv. Pendula.

To give identity to this form we propose the cultivar name Honiara.

***Carallia brachiata* (Lour.) Merr. cultivar **Honiara****

Differs from the wild tree in its tall, narrow columnar habit with pendulous branches. Representative herbarium collections (all seen at SIN): Solomon Islands: Honiara, Coronation Gardens: BSIP 503, 3 Aug. 1962, Forester collector; BSIP 7870, 23 Feb 1967, G.F.C. Dennis. Kolombangara, Lodomae village: BSIP 4413, 26 July 1964, T.C. Whitmore, 'dautoli'.

The seedlings of typical *C. brachiata* are described by Burger (1972). Our observations concur except that the cultivar has entire, not serrate cotyledons (Fig.3). Ng (1991-2) illustrated seed (Fig. 466B) and seedling (Fig. 768) of the typical form. These are also similar to the cultivar but Ng noted germination occurred between 52 and 106 days, much slower than we observed. Our cultivar very soon develops weeping branches (Fig.4), and grows rapidly in height (4 mo 15 cm, 5 mo 25 cm, 7 mo 40 cm, 10 mo 60 cm).

A second batch of the 1986 seed lot, sent to the Forest Research Institute of Malaysia, failed to germinate. It seems likely from this and the earlier failures that the seeds soon lose viability, perhaps due to desiccation, i.e. they are recalcitrant *sensu* Roberts (1973).

### **Acknowledgements**

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**Fig. 2.** *Carallia brachiata* cv. *Honiara* as a street tree in Singapore, July 1994.

### References

- Hou, D. (1958). *Rhizophoraceae. Flora Malesiana series I*, 4 429-93.
- Burger, D. Hzn. (1972). *Seedlings of some tropical trees and shrubs mainly of southeast Asia*. PUDOC, Wageningen.
- Ng, F S P (1991-2). *Manual of forest fruits, seeds and seedlings*. 2 vols. *Malayan Forest Record* 34.
- Roberts, E.H. (1973). Predicting the storage life of seeds. *Seed Science & Technology* 1, 499-574.



**Fig. 3.** Young seedlings showing cotyledons with entire margins.



**Fig. 4.** Seedling at 10 months age, 65 cm tall, scale marked every 30 cm.