

Rhododendron leucogigas 'Hunstein's Secret'

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Of all the species of vireya rhododendron cultivated in Australia, none has generated as much discussion about its identity as the plant now known as *R. leucogigas* 'Hunstein's Secret'. The saga began in August 1966, when one of us (Craven) discovered a large-leaved rhododendron at about 1200m on Mt. Hunstein in the Sepik District, Papua New Guinea. Only a single individual was found, a small seedling growing on a branch fallen from the forest canopy. It was so small that only a single scion was available. It is doubtful that the plant would have survived for long on the forest floor as the light levels there were much less than the plant would have been receiving high in the canopy. The scion was sent to Melbourne, Australia, and there successfully propagated as an own-root cutting.

The first identification of the plant, tentative since it was based on leaf material only, was *R. schlechteri*. When it flowered several years later a firm identification was made, *R. aff. gardenia*, which is the botanist's shorthand for "Rhododendron species with an affinity to *R. gardenia*". *Rhododendron gardenia* is classified in subsection *Phaeovireya* which includes species such as *R. konori* and *R. phaeocephalum*. The Mt. Hunstein plant has flowers which are large and white, and with a form generally similar to that of *R. konori* (Figs. 1, 2). Each flower is about 12cm long (the tube length, measured from corolla base to the limb) and about 12cm wide (the limb diameter).



Fig.1. 'Hunstein's Secret' in bud, April 1987. The dark red perulae (the protective scales of buds), a striking feature of this species, can be seen below the buds.

Photo by J. L. Rouse.



Fig.2. 'Hunstein's Secret' in full flower, April 1987.

Photo by R. Moodycliffe.

Not surprisingly, this species has become of great interest to Australian vireya growers and its pollen has been widely used in hybridizing (by Rouse in particular). A great deal of hybrid seed has been distributed, with this plant recorded in the genealogy (usually given as "*R.gardenia aff.*") and flowers of one of the hybrids is shown in Fig. 3.



Fig.3. *R.konori* (West Irian form of this species) x 'Hunstein's Secret'.

Photo by J. L. Rouse.

In addition to being used in hybridizing, 'Hunstein's Secret' has been selfed (ripe, dehiscent capsules from selfed flowers are shown in Fig. 4). Plants of *R.leucogigas* are relatively slow in making growth and therefore propagation by cuttings is not a feasible technique for increasing stocks; propagation by seed currently is the most suitable method. *Rhododendron leucogigas* is one species for which propagation by tissue culture may have advantages.

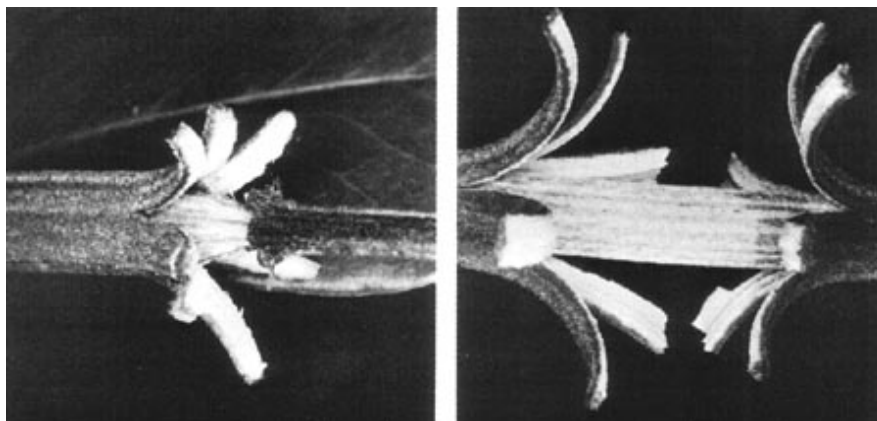


Fig.4. Initial phases of dehiscence in capsules from selfed flowers of 'Hunstein's Secret', December 1987. Left: the epicarp and mesocarp layers have ruptured at the base of the style and are beginning to peel away from the endocarp. Right: the epicarp and mesocarp layers have ruptured centrally on the capsule and are peeling away in both directions. This mode of

dehiscence occurs much less frequently than that shown in left photo.

Photos by J. L. Rouse.

The similarity of the plant to cultivated plants of *R.leucogigas* caused Craven to question the accuracy of the determination of *R. aff. gardenia*. Study of the leaf scales of the Mt. Hunstein plant showed that these were stellate and mostly sessile, although dendroid scales were by no means uncommon (Fig. 5). Using the identification keys in the treatment of *Rhododendron* in *Flora Malesiana* (Sleumer, 1966) the plant readily keys to *R.leucogigas*, a species then known only from the Cycloop Mts. in Irian Jaya and which is classified in subsection *Euvireya* series *Javanica*. Comparison with the description given of this species in *Flora Malesiana*, with herbarium specimens held in the Australian National Herbarium, and with live plants known to be named reliably, has proved to our satisfaction that the Mt. Hunstein plant represents *R.leucogigas*. Thus Mt. Hunstein is apparently the second reported locality for this species.

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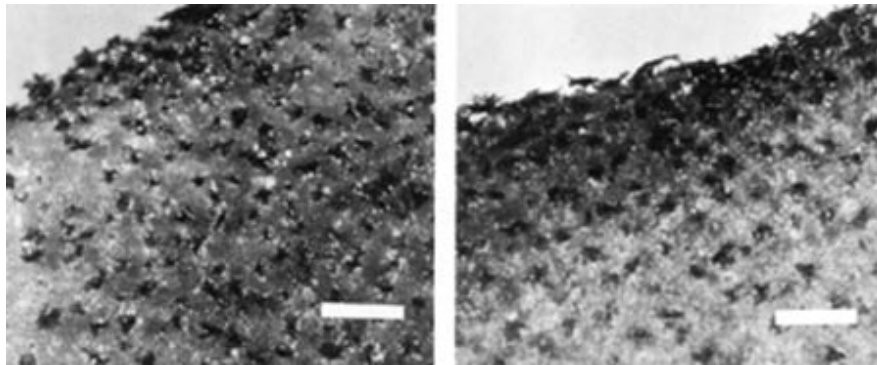


Fig.5. Leaf scales of 'Hunstein's Secret'. Left: a portion of the marginal zone of the adaxial ("upper") surface of a leaf. Right: a portion of the marginal zone of the abaxial ("lower") surface of the leaf shown on the left. The bar represents (approx.) 0.5mm.

Photos by J. L. Rouse.

The Mt. Hunstein form of *R.leucogigas* has been given the cultivar name 'Hunstein's Secret' in allusion to the fact that for so many years this species had been growing, unknown to botanists and rhododendronophiles, in the

virgin rainforests of Mt. Hunstein. Indeed, it is likely that relatively few humans have ever seen it there. Until the 1960's this region had been occupied by scattered, very small groups of nomads who travelled through the forest finding their food as they went, in sharp distinction to the majority of Melanesians who grow the bulk of their food requirements in gardens and live in more or less permanent villages. Now these nomads have been aggregated along the rivers, the communications routes in this part of Papua New Guinea, and they rarely travel through the lands that once had been their home.

A secondary source of confusion over the name *R.gardenia* has arisen as a result of vireya growers in the Wollongong district, New South Wales, cultivating an entirely different plant under the name *R.gardenia*. This plant was introduced from Holland by W.F.Mearns (Mearns, personal communication). The name was derived from a perceived similarity in flower colour to *Gardenia globosa* (correctly *Rothmannia globosa*) by the original Dutch grower. It seems that the plant is of hybrid origin and that the name is to be regarded as a cultivar name rather than a scientific name, in which case it should be written as *R.'Gardenia'* or *R. cv. Gardenia* rather than as *R.gardenia*.

The species described by Schlechter as *R.gardenia* (Schlechter, 1918) is a very different plant. *Rhododendron* 'Gardenia' keys to *R.konori* in Sleumer (1966) but it differs from this species, *inter alia*, in the shape and colour of the corolla. The parentage of this very attractive cultivar presumably includes *R.konori* or a closely related species such as *R.phaeocephalum*. It has not been ascertained as to whether or not the name *R.'Gardenia'* in fact has been registered with the international registration authority for *Rhododendron* cultivars but it would appear that under the *International Code of Nomenclature for Cultivated Plants* (Brickell *et al.*, 1980) the epithet 'Gardenia' should be regarded as invalid (*cf.* Articles 27(a) and 31(a)).

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References

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