Rhododendron sojolense Argent (Ericaceae), A New Species of *Rhododendron* Subgenus *Vireya* from Sulawesi, Indonesia

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Abstract

Rhododendron sojolense Argent (Ericaceae) is described as a new species of subgenus *Vireya* section *Euvireya* from Mt. Sojol on the northern arm of the island of Sulawesi, Indonesia. Comparisons with related species are made.

Introduction

There has been considerable recent botanical fieldwork on the island of Sulawesi in recent years, which has produced a number of new taxa. It is an island of extraordinary complexity in its geological history and biological diversity (Mendum and Atkins, 2004). Professor Sleumer's Flora Malesiana account (Sleumer, 1966) described 25 species of Vireya Rhododendron of which 19 were considered endemic. This number was increased to 28 species in a review of the Rhododendrons of Sulawesi (Argent, 2007), but remarkably this increase in number was entirely with records of non-endemic species, which underlined biogeographical links with Borneo, Philippines and Maluku. However the species described here is clearly a new endemic. It keys in Sleumer (1966) most closely to *Rhododendron lompohense* J.J.Sm. also from Sulawesi, but *R. lompohense* differs from *R. sojolense* in having white tubular-funnel shaped flowers and rounded not tapering leaf bases. In Argent (2007), it keys to *R. leptobrachion* Sleumer to which it would appear to be more closely related. It differs markedly from this species in that the leaves are revolute, not involute, with shorter and much broader apices; the blades are much broader, about twice as long as broad and not three times as long as broad as in *R. leptobrachion*, and the leaf base although acute, is not decurrent as it is in *R. leptobrachion* (for about half the length of the petiole in that species). The lateral buds, which are prominent in both species, are broad and rounded in the new species, whereas they are slender and very acutely pointed in *R. leptobrachion*, and the flowers are larger, mat pink rather than glossy red. The bracts of the new species are glabrous outside, not hairy as described for *R. leptobrachion*, although the cultivated material of *R. leptobrachion* at RBGE also has the bracts glabrous outside

as in this new species. Cultivated material of *R. leptobrachion* in Edinburgh agrees in all other respects with the type specimen of this species held in the Rijksherbarium, Leiden. *R. leptobrachion* has been recorded from Mt. Sojol (Binney, 2003) and it has not been possible to check these claims. It would appear likely that these plants too (probably only collected as living plants) were this new species as all previous records of *R. leptobrachion* are from the central mountains in Sulawesi.

Rhododendron sojolense flowered for the first time in cultivation at the Royal Botanic Garden Edinburgh in May 2005, but it was not considered sufficiently mature to describe until it was seen to be flowering regularly. The cultivated plants are now nearly 1 m high. They grow easily and at present flower just once a year in late Spring or early Summer. Three seedlings were collected in the wild all from the same general locality. The two additional (non-type) collections differ only in having green rather than pink flower buds. Mt. Sojol the locality for this new species is an isolated peak on the northern arm of Sulawesi. It is a remote location requiring several days walk to reach the montane forest and it has not been well collected. The lower slopes have been greatly denuded of vegetation by agriculture, but there is still a good area of humid mossy forest around the summit.

Rhododendron sojolense Argent, *sp. nov.*
Rhododendroni leptobrachioni *similis, a qua alabastris lateralibus brevibus rotundatis haud tenuibus acutis, foliis revolutis non involutis apicibus multo latioribus brevioribusque et corolla longiore rosea non rubra differt.* – **Holotypus:** Indonesia, Sulawesi, Mt Sojol, in mossy forest, 2000–3000m, locally common as an epiphyte (BO; iso, E, L. SING). **Figs. 1-3.**

Figure 1. Colour illustration of the inflorescence of *Rhododendron sojolense* (based on type specimen).

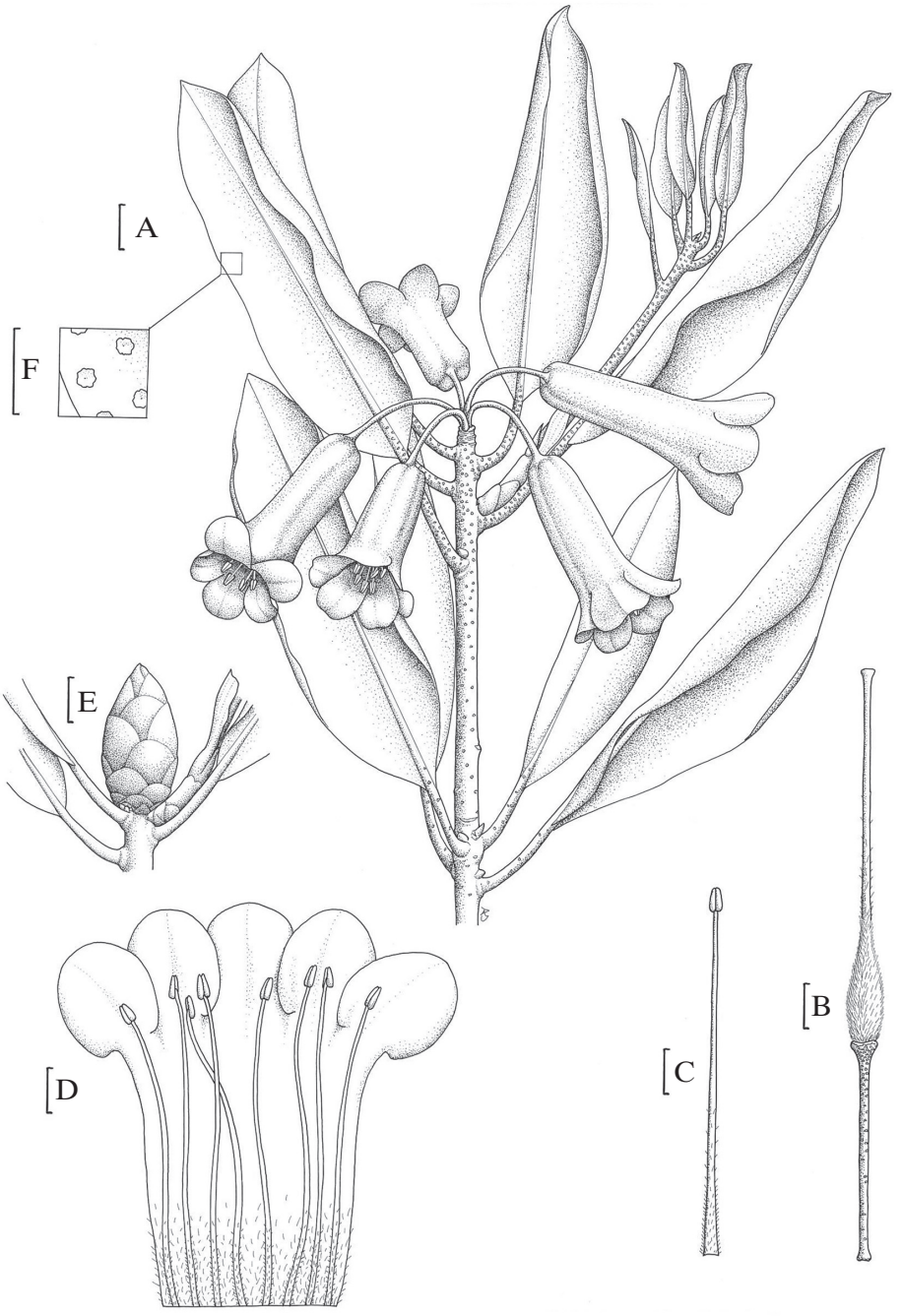

Figure 2. A. Habit with inflorescence; B. Pistil with pedicel; C. Stamen; D. Corolla viewed from the inside with stamens; E. Inflorescence bud; F. Close-up to show scales on the underside of the leaf. All drawings based on type specimen.

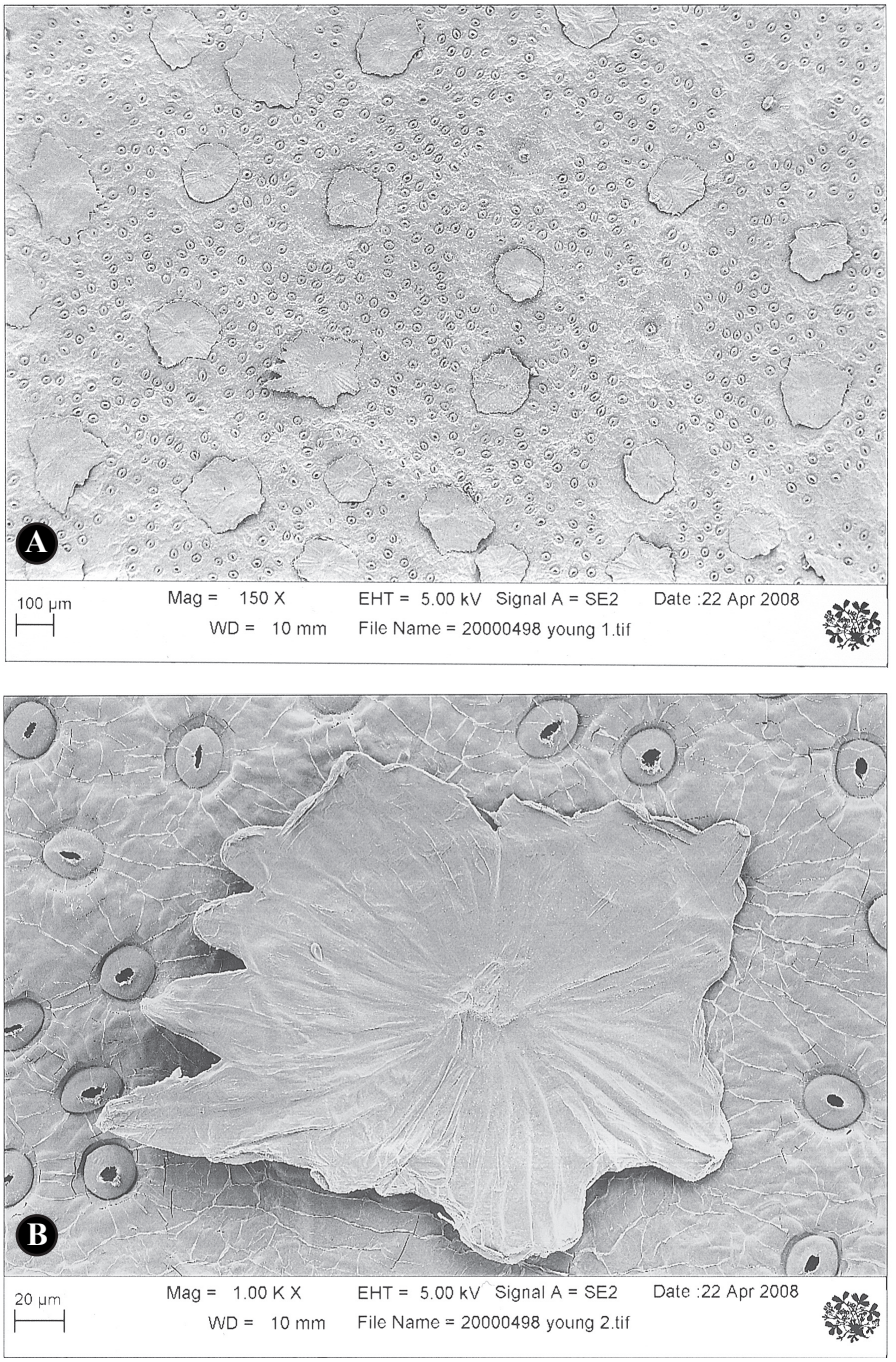

Figure 3. A. Scanning electron microscopic view of the leaf underside showing the distribution of the scales; B. SEM close-up showing the shape of a typical leaf scale (based on type specimen).

Subgenus *Vireya*, section *Euvireya*

Erect **shrub**. Twigs rounded, 3-5 mm in diameter, laxly silvery scaly, becoming glabrescent, without simple hairs, purplish-red when fresh, with prominent rounded lateral buds in the axils of the upper leaves and occasionally along the stems; internodes 5-12 cm. **Leaves** 3-6 together in loose pseudo-whorls at the upper 1-3 nodes. Blade 65-180 × 29-55 mm, elliptic, broadly elliptic, or slightly obovate; apex broadly acute to obtuse, occasionally broadly apiculate; margin entire, strongly and broadly revolute, often to half the width between midrib and margin; base broadly to narrowly tapering, densely scaly on both sides when young, glabrescent above, more persistently and laxly to subdensely scaly beneath. Scales silvery, with a relatively wide transparent marginal zone star-shaped to subcircular, centre minute and slightly impressed, brown. Mid-vein narrow raised above in the proximal 1/3, impressed distally, strongly and obtusely prominent beneath for most of its length, often purplish; lateral veins 6-10 per side, irregular, spreading at ca 45°, obscurely inarching, with additional shorter intermediate veins all minutely raised, minutely grooved above, more slender and hardly raised beneath. Petiole 14-25 × 3-4 mm, rounded above, purple, densely scaly. **Flower** buds to 32 × 15mm, ovoid to conical-ovoid, smooth, dull red, glabrous apart from some scales on the bract margins. Outer bracts to 25 × 12 mm, ovate to ovate-oblong, the outer often splitting to become emarginate, inner ones spathulate, glabrous inside. Bracteoles 15-20 × *ca* 0.3 mm, linear, densely hairy. **Inflorescence** 7-10-flowered, an open umbel, the flowers half-hanging to hanging. Pedicels 15-24 × *ca* 1.25 mm, pink, slender, laxly to densely scaly, without hairs. Calyx 3-4 mm in diameter, obliquely disc-shaped, densely scaly outside. Corolla 45-50 × 30-35 mm, tubular, bright matt pink; tube 25-38 × 9-12 × 10-12mm, cylindrical, straight, very prominently and deeply sulcate in the proximal ½, glabrous outside, sub-densely shortly hairy inside with retrorse (proximally pointing) hairs; lobes 12-15 × 12-15 mm, sub-circular or emarginate, overlapping to 3/4, half-spreading. Stamens irregularly arranged, exserted to *ca* 10 mm; filaments linear, pink, densely sub-patently hairy in the proximal 3/4, glabrous distally; anthers brown, *ca* 3 × 1 mm, oblong. Disc prominent, yellow, deeply lobed, long hairy on the upper side otherwise glabrous. Ovary 8 × 4 mm, sub-cylindrical, green, but densely covered in long appressed silver hairs, which completely cover small scales, tapering distally; style slender, deflected to the lower side when young, pale pink, *ca* 26mm, hairy in the proximal 2/3 not scaly; stigma capitate. **Fruit** 20-30 × 5-6 mm, cylindrical, slightly curved, sub-densely hairy and scaly. **Seeds** 3.8 mm, without tails 0.8-1 mm, the longest tail 1.8mm, the tails highly crimped.

The type specimen was collected by Smith and Galloway (# 101, RBGE Accession 20000498) as living material on 27 Feb 2000. The plant

flowered in cultivation in Edinburgh, May–June. Additional materials: RBGE accessions 20080948 & 20080949. Both from the same locality.

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