

***Begonia sizemoreae* Kiew (Begoniaceae), a Handsome New Begonia from Vietnam**

RUTH KIEW

Singapore Botanic Gardens, Singapore 259569

Abstract

Begonia sizemoreae Kiew (sect. *Platycentrum*) is described from the Ba Vi National Park in North Vietnam. Closely related to *B. rex* Putzeys and with similarly fine variegated leaves, it is striking for the crimson reticulation of veins in the central and marginal parts of the leaves.

Introduction

This attractive begonia was first discovered by Mary Sizemore on 6th November 1996 in Ba Vi National Park. c. 80 km west of Hanoi, Vietnam. It was listed in the American Begonia Society's *Unidentified Species List* as *Begonia* U388 and, because of its beautiful leaves, was quite widely circulated among the Society's members (Keepin, 2003). Naming such a striking plant, which is a significant addition to the foliage begonias already in cultivation, is long overdue. It is here described and illustrated and is named in honour of Mary Sizemore.

Begonia sizemoreae* Kiew, *sp. nov.

A *Begonia rege* Putzeys petiolis quam laminis subduplo longioribus, venis tertiariis foliorum rubris et cymis 3-floris statim dignoscenda. **Typus:** Vietnam, Ba Vi National Park, Ha Tay Province, c. 80 km west of Hanoi, Accession No. 20020399 cult. in Singapore Botanic Gardens ex Palm Hammock Orchid Estate, Miami, U.S.A. *R. Kiew 5304* (holo SING, iso HN).

Plate 1

Begonia rhizomatous. *Stem* creeping, not branched, succulent, c. 2.5 cm long and c. 5 mm thick; reddish brown or purplish; without a tuber. Indumentum of white, c. 10 mm long, uniseriate hairs, scattered on the upper lamina surface (not on the veins), these c. 5 mm long and dense on the stem, stipules and petiole, 2–4 mm long and dense on the lamina margin and on the undersurface

of the midrib, secondary and tertiary veins. *Stipules* persistent, broadly triangular tapering to a setose point, 8–12 x 4–9 mm, reddish when young, becoming pale yellowish green with a reddish band along the midrib, margin entire. *Leaves* alternate, tufted; *petiole* terete, (4.5–)10.5–19 cm long, pale red or purplish; *lamina* oblique, asymmetric, broadly ovate, 6.5–11.5 x 5.5–10.5 cm, broad side 4–6.5 cm wide, base unequally cordate, larger basal lobe 2.25–3.5 cm long, margin entire, slightly undulate, apex slightly acute, sometimes rounded, lamina slightly velvety above and thinly succulent in life, papery when dried, variegated on the upper surface with the basal part (less than half the lamina width) and a band c. 10–15 mm wide around the margin jade green sometimes with a blackish hue and with the middle part pale silvery grey-green, secondary veins green in the basal part, white in the middle part and deep crimson in the marginal band, tertiary veins deep crimson in the basal and marginal parts and white in the middle part, on the lower lamina surface green with secondary veins greenish brown, tertiary veins deep crimson; venation palmate-pinnate with 2 pairs of secondary veins at the base and 2 pairs along the midrib with another vein in the basal lobe, secondary veins branching c. halfway to the margin, impressed above, prominent beneath.

Inflorescences axillary, monochasial cymes, protandrous with two male flowers and one female flower, glabrous, 7.25–19.5 cm tall with two branches 2–3 mm long, rosy red, greenish distally. *Bracts* narrowly ovate, 11–15 x 4–5 mm, glabrous, pale green, almost transparent, reddish along the midrib and towards the tip, apex acutely pointed, margin entire, caducous. *Male flower*: pedicel 18–20 mm long, pale pink or white; *tepals* 4, glabrous, margin entire, apex rounded, outer two tepals ovate, 18–25 x 13–14 mm, deep pink paler towards base, longitudinal veins slightly impressed; inner two tepals oval, 16–25 x 9–11 mm, pale pink, veins not impressed; *stamens* many, joined into a more or less globose cluster, 5–7 x 5 mm; filaments joined into a column for 1–3.5 mm and free for c. 1.25 mm, white; anthers narrowly oblong, c. 2.5 mm long, deep yellow, apex strongly apiculate, c. 1 mm long, thecae dehiscing through lateral slits. *Female flower*: pedicel 15–25 mm long, slightly reddish; *ovary* pale green, 7–8 x 20–23 mm, wings 3, unequal, long wing 12–17 mm wide, two shorter wings 3–5 mm wide, locules 2, placentas bifid; *tepals* 5, obovate tapered to an acute apex, more or less isomorphic, 19–21 x 10–12 mm, deep pink at the tip, paler at the base, margin entire and undulate; styles and stigma golden yellow or yellowish green, *styles* 2, 8–9 mm long, joined for c. 2 mm at the base, bifurcating in the upper third; *stigmas* a spiral papillose band. *Fruit and seed* not known.

Distribution: Endemic in N. Vietnam (Ba Vi National Park).

Habitat: Locally common on earth banks beside the road in medium shade at c. 800 m altitude.

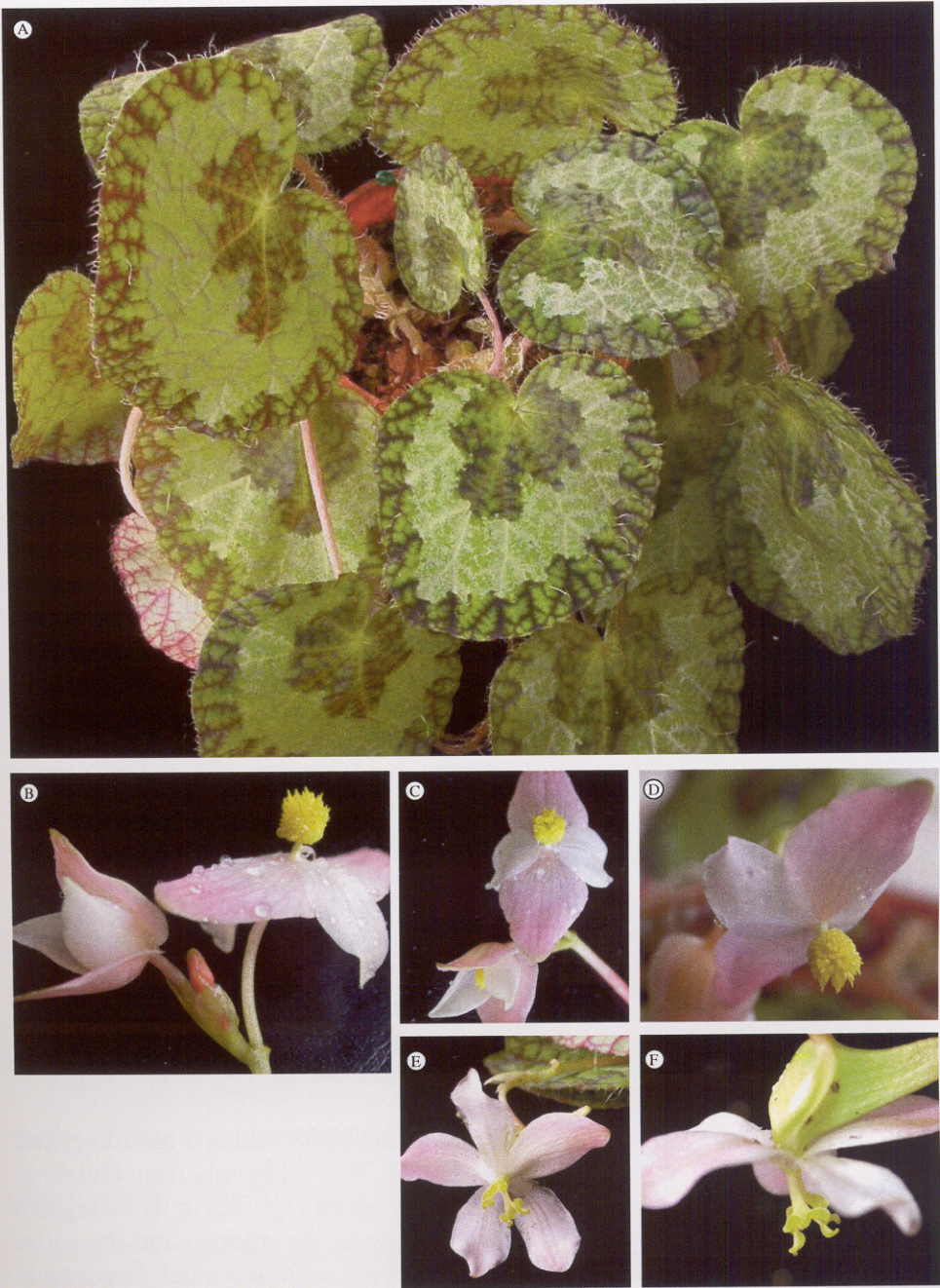


Plate 1. *Begonia sizemoreae* Kiew.
A. The plant. B. Monochasial cyme with two male flowers and the developing female flower. C, D. Male flower. E, F. Female flower. *Serena Lee*

Other specimen examined: U.S.A., Palm Hammock Orchid Estate, Miami, Kiew s.n. 10 Feb 2002 (SING).

Notes: *Begonia sizemoreae* belongs to sect. *Platycentrum* in being rhizomatous, protandrous, and having a male flower with four tepals and a female flower with an ovary with one wing much longer than the other two, two styles, and two locules each with a bifid placenta.

This new species is very similar to *Begonia rex* Putzeys from Assam, India, in its leaf shape, the silvery band around the middle of the leaf and in flower structure. However, *B. sizemoreae* is distinct in its petioles being much longer (over 1.5 times longer) than the lamina and densely hairy, whereas in *B. rex* the petioles are shorter than the lamina and are less hairy. The lamina of *B. rex* is distinctly bullate, while that of *B. sizemoreae* is not. The details of the variegation are significantly different: in *B. sizemoreae* the basal and marginal parts of the lamina are jade green with striking deep crimson venation, while in *B. rex* the basal and marginal parts are dark green to bronzy green and the venation is concolorous. In addition, the leaf base is never overlapping, as is seen in wild collections of *B. rex* (e.g. Griffith 2588, K). In *B. sizemoreae*, the inflorescence is a three-flowered, monochasial cyme with a single female flower, while in *B. rex* it is a dichasial cyme with four female flowers.

The introduction of *Begonia rex* is well documented—it was inadvertently introduced from Assam together with a consignment of orchids and was bought by J. Linden for 10,000 francs (Thompson & Thompson, 1981). The original French publication described it as 'ce merveille Begonia' (Hooker, 1859). Since then it has been hybridized with a wide range of species, both closely and distantly related, to produce an amazing variety of leaf shapes (some even spiral!), colours, patterns and leaf textures but most with the characteristic silvery sheen. It is doubtful now whether any 'pure' *B. rex* plants exist in cultivation considering the ease with which it hybridizes. As Krempin (1993) records, the hybrids of *B. rex* are 'never ending' and there are probably more than a thousand named and unnamed. *Begonia rex* is not recorded wild from Vietnam. Hô (1991, 1999) included it in his account of Vietnamese begonias as a cultivated species.

Golding (2004) recently identified *Begonia* U388, which is here described as *Begonia sizemoreae*, as *B. longiciliata* C.Y. Wu, a begonia from Guizhou, China. However, *B. sizemoreae* is different from this species in its variegated leaves, the larger basal lobe (one third as long as the midrib) and the entire margin; the inflorescence is a monochasial cyme with two much larger male flowers. In contrast, the lamina of *B. longiciliata* is plain deep green above and green beneath, the larger basal lobe is only one fifth to one sixth as long as the midrib, and the margins are denticulate; the outer tepals of the male flowers are 13 by 8 mm and the inner ones 9 by 3.5 mm. Although Wu in Wu

& Ku (1995) described the inflorescence as monochasial with two flowers, the illustration shows it to be dichasial with potentially six male flower and four fruits. In this latter character, it resembles *B. rex*.

Apart from its stunning foliage, *Begonia sizemoreae* has the advantage that it is easy to grow in cultivation unlike many other wild species in Asia. In cultivation, its leaves can grow up to 26 by 16.5 cm (M. Sizemore, *pers. comm.*). It flowers freely and, in Singapore, it is not seasonal. It propagates easily from the leaves. Keepin (2003) reports that it is self compatible and produces viable seed. This new species is therefore an important addition to the stable of cultivated begonias. Its charm lies in the deep crimson tracery of the fine network of veins—a feature not seen in *B. rex*. No doubt, it too will prove easy to hybridise, but it is important to keep a pure line so that its identity is not lost.

Acknowledgements

I am grateful to Mary Sizemore who shared her discovery with other begonia enthusiasts and who provided habitat data; to the Institute of Ecology and Biological Research (NCST), Hanoi, Vietnam for giving M. Sizemore permission to collect plants and to Nguyen Van Du, who accompanied her; to Tim Anderson, Palm Hammock Orchid Estate, who drew my attention to this species and provided me with material; to Norhayati Mohd Din, for her care of the Singapore Botanic Gardens begonia collection; to Serena Lee for the photographs; to M.J.E. Coode for correcting the botanical Latin; and to the Keeper of the Herbarium, Royal Botanic Gardens Kew, for permission to examine specimens in his care.

References

- Golding, J. 2004. Begonia U 388 is *Begonia longiciliata* C.Y.Wu. *The Begonian*. **71**: 154–156.
- Hồ, P. H. 1991. Figure 2053 *Begonia rex*. *Cây Cỏ Việt Nam*. **1**: 739.
- Hồ, P. H. 1999. Figure 2339. *Begonia rex*. *Cây Cỏ Việt Nam*. **1**: 585.
- Hooker, W. J. 1859. *Begonia rex*, Royal Begonia. *Curtis's Botanical Magazine*. **85**: Plate 5101.
- Keepin, T. 2003. Begonia U388 out of a terrarium in Houston. *The Begonian*. pg. 128.
- Krempin, J. 1993. *Know Your Begonias*. Krempin Book, Australia.

Thompson, M.L. and E.J. Thompson. 1981. *Begonia—The Complete Reference Guide*. Times Books, U.S.A.

Wu, C.Y. and T.C. Ku. 1995. New taxa of the *Begonia* L. (Begoniaceae) from China. *Acta Phytotaxonomica Sinica*. 33: 251–280.

Note added in press: A begonia called 'Vietnamese hairy *Begonia*' was illustrated in *The Garden* (2004) Volume 129 (7): 515, after it had been exhibited at the Chelsea Flower Show. From the photograph, it looks very like *Begonia sizemoreae*, which suggests that this species is beginning to enter the horticultural trade.