276. STEUDNERA DISCOLOR

Peter Boyce

Steudnera discolor N.E. Br. is a spectacular species in the tribe *Colocasieae* and is related to the TARO crop-plants *Colocasia* L., *Xanthosoma* Schott and *Alocasia* Schott. *Steudnera* occupies a rather isolated position in the tribe but appears to be most closely allied to *Ariopsis* Nimmo and *Remusatia* Schott. The plant illustrated here was originally collected by Josef Bogner in Sylhet, Bangladesh, close to the border with the Indian state of Assam.

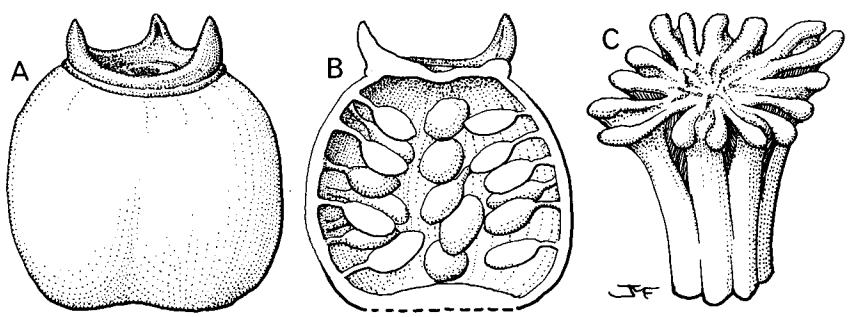
The genus *Steudnera* C. Koch (Koch, 1862) was first described to accommodate a single species, *S. colocasiifolia* C. Koch. At the time of publication there was confusion over the geographical origin of the genus, with Koch stating that the plant was collected by J.J. Linden in South America. The notion of a New World origin for the genus persisted when N.E. Brown published *S. discolor* (Brown, 1875). Oddly, there is material of various *Steudnera* species of explicitly Asian origin, collected prior to the generic publication date, in several European herbaria and it thus appears that this material was overlooked by both Koch and Brown, or that its significance was not appreciated. Alternatively, it is possible that in citing a specimen of *Steudnera* in the Calcutta Herbarium collected by W. Griffith in Burma as a new species of *Gonatanthus* Klotzsch (*G. griffithii* Schott), Schott (1860) further obscured the true origin of *Steudnera*. Schott's mis-identification was noted by Engler in the aroid account for de Candolle's *Monographiae Phanerogamarum* (Engler, 1879) and this finally laid to rest the spurious origin of the genus *Steudnera*.

The plant illustrated here agrees in most respects with the type specimen of *S. discolor* in the herbarium at Kew, although it lacks the purple leaf markings seen in the latter. Leaf markings are sometimes taxonomically important in the Araceae and their absence in the plant depicted could be of significance with regard to its exact identification. Unfortunately, herbarium material of *Steudnera* is rather scarce and species delimitation is difficult to resolve. Until a revision has been undertaken critical naming of *Steudnera* will remain problematical.

CULTIVATION. *Steudnera discolor* is a terrestrial herb native to areas of humid tropical rain-forest. In cultivation it requires a minimum of 20°C with a correspondingly high humidity and it seems to be intolerant of bright sunlight, growing best in a shady position. A

growing medium of equal parts by volume bark chips, coir, charcoal and moss gives good results when combined with a regular feeding programme to encourage strong growth.

Steudnera discolor N.E. Br. in Gard. Chron. new ser. 4: 708 (1875); Hook. f. in Curtis's Bot. Mag. 100, t. 6076 (1874) as *S. colocasiifolia*. Type: Cult. Bull, Chelsea, London (holotype K!).
S. colocasiifolia var. *discolor* (N.E. Br.) Engl. in A. & C. D.C., Monog. Phanerog. 2: 452 (1879).



Steudnera discolor. A, ovary, × 40; B, ovary, longitudinal section, × 40; C, stamen, three quarter view, × 4. Drawn by Mark Fothergill.

DESCRIPTION. *Medium sized to robust evergreen herb. Stem* 2–15 m long, 1.5–3 cm diam., epigeal, erect, decumbent with age, densely covered with tattered cataphyll and leaf remains, older portions eventually naked. *Roots* 1.5–3 mm diam., produced from lower stem portions and from ventral surface of decumbent stems. *Leaves* several, 15–30 cm long, 8–18 cm wide, peltate, ovate, apex acuminate, emarginate basally, sinus very shallow, posterior lobes almost absent; lamina membranaceous, deep olive green adaxially, pale green abaxially. *Petioles* 10–18 cm long, 3–7 mm wide, terete, pale green, petiolar sheath very short. *Inflorescence* solitary; peduncle 6–12 cm long, 1.5–3 mm wide, terete, pale green. *Spathe* 10–14 cm long, 3–5 cm wide, ovate-lanceolate, long acuminate, reflexing on opening, upper part soon withering, marcescent, exterior pale yellow, interior dark yellow, lower part persistent into fruiting stage, exterior pale yellow, interior red-purple. *Spadix* 4–6 cm long, 4–7 mm wide, male flower zone clavate, free, female flower zone cylindric, dorsally adnate to spathe. *Flowers* unisexual, naked. *Stamens* 1–2 mm high, 1.5–2.5 mm wide, 4–6-androus, connate into a polygonal, shortly stipitate synandrium, thecae dehiscing by apical pores, connective thick, apex impressed, male flower zone pale creamy white. *Gynoecium* 2–3 mm high, 0.5–1 mm wide, subglobose, surrounded by a whorl of 5–8 clavate staminodes; ovary 2–5 loculate, ovules numerous, on

Steudnera discolor

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parietal placentas, hemi-anatropous; style very short, stigma 3–5 lobed, exceeding style width; female flower zone pale creamy white, style and stigma tinged pale purple. *Infructescence* consisting of a few to many berries partially covered by the persistent spathe base. *Berries* 6–11 mm long, 4–7 mm wide, ovoid; seed 0.5–1 mm long, 0.3–0.5 mm wide, ovoid, sarcotestate; testa thick, longitudinally costate.

DISTRIBUTION. Bangladesh, north-east India, Myanmar (Burma).

HABITAT. Terrestrial in tropical humid forest at low altitudes.

REFERENCES

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Koch, C. (1862). Steudnera colocasiaefolia C. Koch. Eine neue Aroidee. *Wochenschrift für Gärtnerei und Pflanzenkunde* 5: 114–116.

Schott, H.W. (1860). *Prodromus Systematis Aroidearum*. Vienna.

A TRIBUTE TO ROBERTO BURLE MARX (1909–1994)

Simon Mayo

Roberto Burle Marx was one of the world's most outstanding landscape and garden designers, whose works are to be found all over the globe. Possibly his most famous designs are the gardens of the state buildings in Brasilia and the immense 'aterro' in Rio de Janeiro, which is an artificial seaward extension of the coastline that stretches for kilometres along the beach in the fashionable southern suburbs of the city. Burle Marx's work has had a tremendous impact because he invented a completely new concept for the design of gardens and public spaces, adapted for tropical environments.

Two major influences on Burle Marx's artistic development were abstract art and the native flora of Brazil. Both arose from his visits to Europe during the 1920s as a young man, where he studied art and music. There he came under the influence of the modern movement in painting led by Picasso, Braque and others and rapidly developed his extraordinary facility for creating and moulding abstract designs for his own purposes, first in painting and later in garden design. He was tremendously impressed by the Botanic Gardens at Berlin-Dahlem, at that time still considered highly radical for its phyto-geographical and ecological arrangement, as formulated by Adolf Engler. This fired Burle Marx with the idea of combining the forms