

**ALOCASIA SIMONSIANA,  
A NEW SPECIES OF ARACEAE FROM NEW GUINEA**

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SUMMARY

*Alocasia simonsiana* A. Hay is described and illustrated. A previously published key to *Alocasia* in Australasia is amended to include the new species.

INTRODUCTION

A revision of the species of *Alocasia* in Australasia was recently published (Hay & Wise, 1991). Since then material of a species of *Alocasia* collected by Dr Arden Dearden near Vanimo (West Sepik Province, Papua New Guinea) has flowered under glass at the Royal Botanic Gardens Sydney. In aspect, the new species appears most closely related to the Australian *A. brisbanensis* (F.M. Bailey) Domin, rediscovered not long ago (Hay, 1989; Hay & Wise, 1991). Although it lacks the characteristic linear synandria of that species, it shares with it the irregularity of shape of the synandria due to the anthers being joined only on their adaxial sides, and not laterally into a regular block. The two species also share anthers opening by means of apical pores, and proportionally long peduncles. It therefore belongs in the 'Ozarum group' in the informal supraspecific grouping proposed in Hay & Wise (1991: 539), which is further characterised by sylleptic renewal growth, persistent leaf sheath and widely opening deliquescent or marcescent spathe limb.

*Alocasia simonsiana* is fitted into the key to the species in Hay & Wise (1991: 504-505) by making the following changes:

- 9b. Spathe limb opening wide ..... 10
  - 10a. Plants moderately robust, stem to c. 4 cm diameter; spadix c. 6 mm diameter 11
    - b. Plants massive, stem exceeding 10 cm diameter; spadix c. 12 mm diameter 12
  - 11a. Petiole sheathing for a quarter of its length or less; renewal growth proleptic; leaf blades usually dark green adaxially ..... **A. aequiloba**
    - b. Petiole sheathing for about 1/3 to 1/2 its length; renewal growth sylleptic; leaf blades glaucous green adaxially ..... **A. simonsiana**
- 12 et seq. = 11 et seq. in Hay & Wise (1991).



Fig. 1. *Alocasia simonsiana* A. Hay (Dearden & Hay 7070). a. Whole shoot; b. venation; c. spadix; d. synandrium; e. pistils. — Scale: bar to a = 1.3 cm; to b, c = 2 cm; to d, e = 2 mm.

***Alocasia simonsiana* A. Hay, spec. nov. — Fig. 1**

Ab *A. brisbanensis* (F.M. Bailey) Domin statura minore, lamina folii glauca, synandrio non lineario, interstitio sterili brevissimo differt. — Typus: Cult. Hort. Reg. Bot. Sydney (Acc. No. 905114) ex Papua New Guinea, West Sepik Province, Vanimo, 27th April 1993, Dearden & Hay 7070 (NSW, holo).

Moderately robust herb to c. 1 m tall; stem erect to c. 40 cm long, c. 4 cm diameter, clothed in old leaf bases; leaves c. 5 together; petiole to c. 30 cm, with scattered glands on the adaxial surface, sheathing in the lower third to one half, the wings of the sheath persistent; blade sagittate, dull blue-green adaxially, paler abaxially, somewhat coriaceous; anterior lobe to 25 cm long, c. 21 cm wide, the tip apiculate, with c. 7 primary veins on either side of the anterior costa diverging at c. 50 degrees; primary venation adaxially raised towards the midrib, impressed towards the margin, abaxially prominent and darker green than the lamina; secondary venation faint abaxially and adaxially, not or hardly raised, diverging at c. 60–80 degrees and forming rather poorly defined intercostal collective veins; posterior costae to c. 13 cm long, diverging at c. 90–120 degrees, with lamina to the sinus, but not peltate except in juveniles; posterior lobes bluntly acute; inflorescences strongly fragrant, paired, subtended by cataphylls bearing reduced petioles and rolled blades; peduncle resembling the petioles, to c. 30 cm long, erect; spathe c. 12 cm long, lanceolate, very weakly constricted about a third of its length from the base, opening above, at and below the constriction at anthesis, so that a distinct lower chamber is not or hardly perceptible, green throughout; lower third persistent after anthesis; limb erect at female anthesis, then reflexed and contorted, leathery, marcescent after male anthesis; spadix c. 10 cm long; female zone c. 1.8 cm long, adnate to the spathe for most of its length, c. 7 mm diameter; pistils globose, c. 2 mm diameter; stigmas button-like to weakly 4-lobed, raised on very short styles; ovary unilocular; ovules anatropous; sterile interstice a single whorl of well differentiated synandrodia without thecae; male zone c. 7–8 mm diameter at base, c. 4 mm diameter distally, c. 3.5 cm long; synandria (2–)4–8-staminate, approximately rhomboid, the outline irregular owing to the anthers being joined only adaxially, not laterally, c. 3–4 mm long, c. 2 mm wide; anthers opening by apical pores; appendix tapering gradually to the tip, more abruptly to the base, orange-yellow, c. 4.5 cm long, c. 5 mm diameter near base, minutely and irregularly tessellated by poorly differentiated synandrodia; fruit and seed unknown.

Distribution – New Guinea; known only from the type collection in lowland rain forest floor.

Note – *Alocasia simonsiana* is named for Ashley Mark Simons, architect, who died of AIDS on March 14th, 1993 at the age of thirty-five.

#### ACKNOWLEDGEMENT

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#### REFERENCES

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