

**ALSTONIA BEATRICIS (APOCYNACEAE),  
A NEW SPECIES FROM IRIAN JAYA, INDONESIA**

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INTRODUCTION

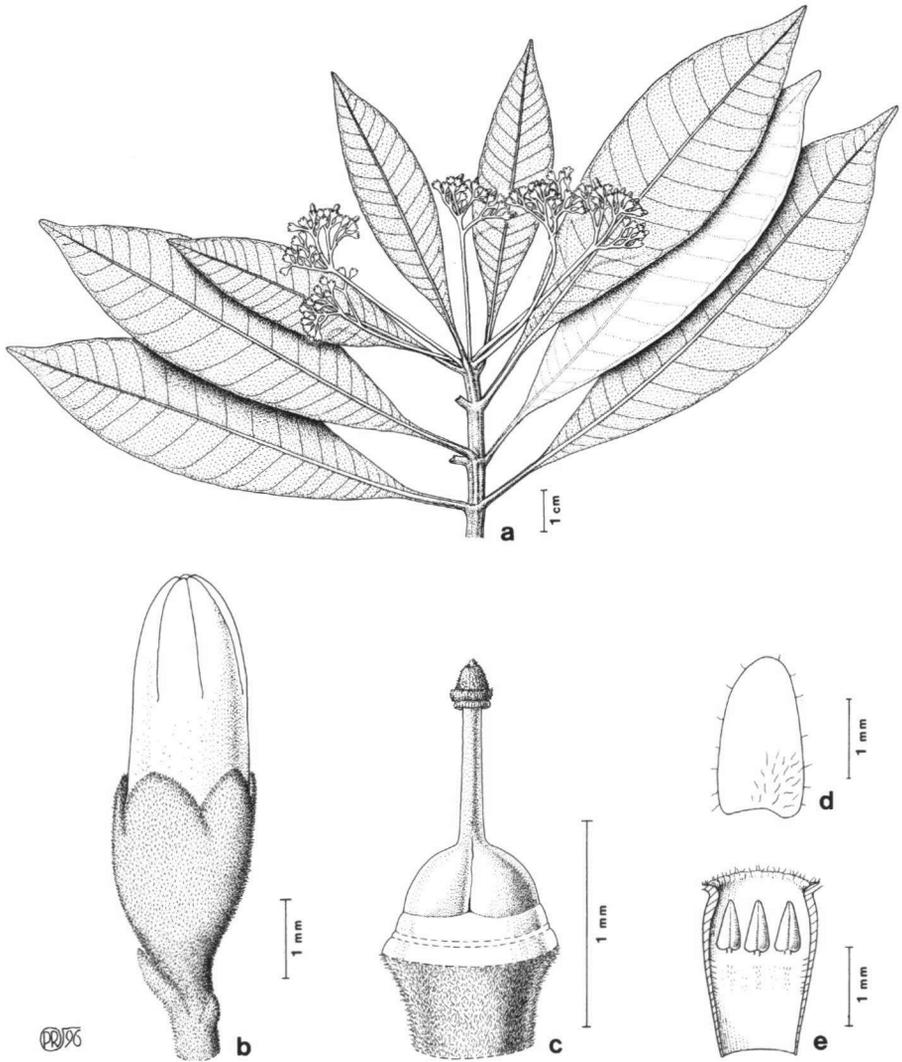
*Alstonia* R.Br. (Apocynaceae) is a pantropical genus occurring in Africa, India, Indo-China, Southeast Asia, Malesia, Australia, and eastwards to the Marquesas Islands and Central America.

In the framework of the International MOF Tropenbos Kalimantan Project, a revision of the genus is in progress. *Alstonia* comprises six sections and about 45 species. One new species from Irian Jaya, Indonesia is described here.

***Alstonia beatricis* Sidiyasa, *spec. nov.***

Arbor parva ramulis glabris. Folia ternata petiolata lamina coriacea subtus ferruginea obovata vel interdum elliptica apice breviter acuminata basi cuneata usque ad in petiolum decurrente integra utroque latere glabra. Inflorescentia multiflora umbelliformis. Sepala subaequalia basi connata turbinata apice rotundata ciliata. Corolla alba extus pro parte puberula tubo lobis ovatis paulo longiore. Stamina inclusa filamentis brevibus filiformibus antherisque ovatis apice acutis basi cordatis. Pistillum glabrum ovario late ovoideo. Fructus ignotus. — Typus: *van Royen 5535* (L holo; A, BO iso), Indonesia, Irian Jaya, Waigeo Is., path from Poean to Tofak Bay.

Small tree, 5 m high. Branches smooth or slightly rough, without lenticels; branchlets terete, 3-angular or slightly sulcate when dried, glabrous, pale brown. *Leaves* in whorls of 3, petiolate; petiole glabrous, 10–20 by 1–2 mm, flattened or shallowly canaliculate above, with many colleters densely together in the axils; blade grey or grey-green above, (reddish) brown beneath and subcoriaceous when dried, narrowly obovate (sometimes elliptic), (2.6–)3.1–4.1 times as long as wide, 6.2–16 by 1.5–5.2 cm, apex shortly acuminate, acumen up to 10 mm long with a blunt point, base acute to decurrent into the petiole, entire, glabrous on both sides; midrib impressed above; secondary veins in 12–16 pairs, straight or rather arched, forming an angle of 70–80° with the midrib, 3–12 mm from each other, joining near the margin and forming a thin submarginal vein, short interstitial veins present; tertiary venation reticulate, usually inconspicuous on both sides. *Inflorescence* 3–6.5 cm long, many-flowered; peduncle 1.4–4.3 cm long, 0.7–1.5 mm in diam., puberulous; pedicels 1–2 by 0.5–0.7 mm, softly pubescent (with very short glaucous hairs). *Bracts* and *bracteoles* sepal- or scale-like, ovate to broadly ovate or triangular, 0.4–0.9 mm long, obtuse or acute, ciliate, softly pubescent outside, glabrous inside. *Flowers*: sepals 5, connate at the base for 0.75 mm, turbinate, c. 1.7 by 1 mm, apex rounded, ciliate, softly pubescent except at the fused part inside, erect, glaucous when dried. *Corolla*



*Alstonia beatricis* Sidiyasa. a. Flowering branch; b. mature bud; c. pistil surrounded by annular disk-like thickening (corolla and calyx removed); d. corolla lobe from inside; e. corolla tube, dissected and slightly stretched to show 3 anthers inserted in the glabrous zone.

white, c. 3 by 1 mm in the mature bud and forming an ovoid head c. 0.5th of the bud length (c. 1.5 by 1 mm), with a blunt apex, partly puberulous on the tube and at the lobe margins outside, blackish when dried, two hairy belts inside, first belt sparsely pubescent starting from c. 0.8 mm above the base and ending at the insertion of the stamens (c. 0.5 mm wide), the second belt pilose with white hairs at the basal half of the corolla lobes (around anthers glabrous); tube c. 1.2 times as long as the sepals, about as long as the lobes, c. 2 mm long, almost cylindrical or slightly widened

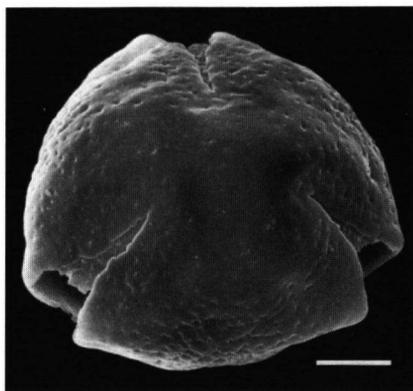
around the stamens, c. 1.2 mm wide; lobes 5, ovate, 1.6–1.8 times as long as wide, c. 2 by 1.1–1.2 mm, ciliate, apex rounded, auriculate at the base at the right side. *Stamens* 5, with apex 0–0.2 mm below the mouth of the corolla tube, inserted at about 65% of the length of the corolla tube (at c. 1.3 mm from the base); filaments c. 0.4 mm long; anthers c. 0.7 by 0.3 mm, apex acute. *Pollen* isopolar, 3-colporate, 25.9 by 30.4  $\mu\text{m}$ ; ectoapertures 20  $\mu\text{m}$  long colpi; endoapertures lalongate pori, 7.6 by 8.2  $\mu\text{m}$ ; tectum psilate, with minute perforations, usually somewhat rugulate in the centre of a mesocolpium. *Pistil* 1.5 mm long; ovary broadly ovoid, 0.4 by 0.6 mm, glabrous, consisting of 2 carpels, with an annular disk-like thickening at the base 0.15 mm high; style 0.7 mm long; pistil head ovoid, 0.4 by 0.25 mm, composed of a thin basal ring 0.15 mm high, a conical central part 0.2 by 0.2 mm, and a minute cleft stigmoid apical part c. 0.05 mm high. *Fruits* unknown.

**Etymology** — Named to commemorate the opening of the Van Steenis Building by Her Majesty Queen Beatrix on June 11, 1996.

**Distribution** — Known only from the type specimen, reported (on label) as a common small tree species.

**Habitat & Ecology** — Low vegetation (open woodland) dominated by *Decaspermum*; 70 m altitude.

**Note** — The present species is closely allied to *A. parvifolia* Merr., which also has the leaves glabrous on both sides. It differs from *A. parvifolia* in its much smaller flowers, very short style (c. 0.7 mm versus 1.1–1.9 mm) and the hairy outside of the corolla tube, which is mostly glabrous in *A. parvifolia*. It also resembles *A. angustifolia* A. DC. and *A. muelleriana* Domin in leaf shape and size. It differs from these species in having the apical part of the corolla lobe glabrous inside. *Alstonia beatricis* differs from all three species mentioned here in its shorter corolla tube (c. 2 mm versus 3–5.5 mm).



*Alstonia beatricis* Sidiyasa. Pollen grain. Scale bar = 5  $\mu\text{m}$ .

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