

GUSTAVIA DODSONII (LECYTHIDACEAE),
A NEW SPECIES FROM RIO PALENQUE, ECUADOR

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Gustavia dodsonii Mori, sp. nov.

(Plate 11).

Arbores, usque ad 18 m altae. Laminae oblanceolatae, sessiles, 78-90 × 20-27 cm, glabrae, coriaceae, paribus venarum lateralium 36-37, apice acuminatae, margine integrae. Inflorescentiae racemosae, supra folia orientes, floribus ca. 8, puberulae, rhachi 6 cm longa; pedicelli 14-17 cm longi, singula bractea caduca ad basim, bracteolis 2, oblongis, 12 × 5 mm, supra medium ortis. Flores 14 cm in diam.; calycis lobi 4 (-5), late triangulares, 14-18 × 8-9 mm; petala (7-) 8, late-anguste obovata, 80-90 × 40-52 mm, rosea; androphori basis connata 13 mm alta, filamenta extima 27 mm longa, antherae 4 mm longae; ovarium 5-loculatum, ovulis 16-20 in quoque loculo, puberulum, obscure 4-costatum, ad summum albo-pubescentis; stylus conicus, 4 mm longus. Fructus turbinatus, atrobrunneus, 13 × 9-10 cm; pericarpium 9-13 mm crassum. Semina 4 per fructum, sine funiculis, magna, 48-74 × 45-58 mm.

TYPE: *ECUADOR*: LOS RÍOS: Río Palenque Science Center, km 56 between Quevedo and Santo Domingo de Los Colorados, tropical wet forest, alt. ca. 200 m, 25 Oct. 1974 (young fr), *Gentry & Dodson 12048* (HOLOTYPE: MO, herb. no. 2272186; ISOTYPES: NY, QCA).

ADDITIONAL MATERIAL EXAMINED: *ECUADOR*: LOS RÍOS: Río Palenque Science Center, km 56, Quevedo-Santo Domingo, alt. 150-220 m, 4 Sept. 1972 (fl), *Dodson & McMahon 5070* (SEL), March 1976 (fr), *Dodson s.n.* (NY, MO).

Gustavia dodsonii is uncommon in the middle story of wet, mature forest. The trunks of this species have very great tensile strength and are therefore used by natives as levers to lift heavy objects. This reduces the number of trees in the woods and probably accounts for the fact that it is uncommon (Dodson, pers. comm.).

Gustavia dodsonii is readily separated from most *Gustavia* species by the subterminal position of its inflorescence (i.e. above the leaves but not terminating apical growth) and the large seeds without funicles. The "*G. speciosa* group" [*G. speciosa* (Kunth) DC., *G. macarenensis* Philipson, *G. angustifolia* Benth. and several unnamed species] and another group of 4 species (*G. pubescens* Ruiz & Pavon ex Berg, *G. grandibracteata* Croat & Mori, *G. sessilis* Mori, and *G. monocalis* Mori) have the same inflorescence and seed characters. However, in the "*G. speciosa* group" the leaves are much smaller and, with the exception of *G. angustifolia*, are never sessile. In the second group only *G. sessilis* and *G. monocalis* have sessile leaves. They can be distinguished from *G. dodsonii* by their smooth vs. obscurely costate hypanthia and persistent vs. caducous floral bracts. The differences between these species will be treated in more detail in a forthcoming treatment of the New World Lecythidaceae by G. T. Prance and myself for *Flora Neotropica*.

Gustavia angustifolia, of drier forests of Pacific Coastal Ecuador is the closest relative of *G. dodsonii*. These two species are separated by the characters listed in the following key.

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1. Leaf blades serrate, 26-41 cm long, 7-9.5 cm wide, densely velutinous abaxially. Petals 40-65 mm long, 20-33 mm wide; pedicels 35-100 mm long. *G. angustifolia*.
1. Leaf blades entire, 78-90 cm long, 20-27 cm wide, glabrous abaxially. Petals 80-90 mm long, 40-52 mm wide; pedicels 140-170 mm long *G. dodsonii*.

This species is named after Calaway H. Dodson, founder of the Río Palenque Science Center, who, along with A. H. Gentry first discovered it and who later provided me with additional material and observations. The local name is "membrillo" (Gentry & Dodson, pers. comm.).

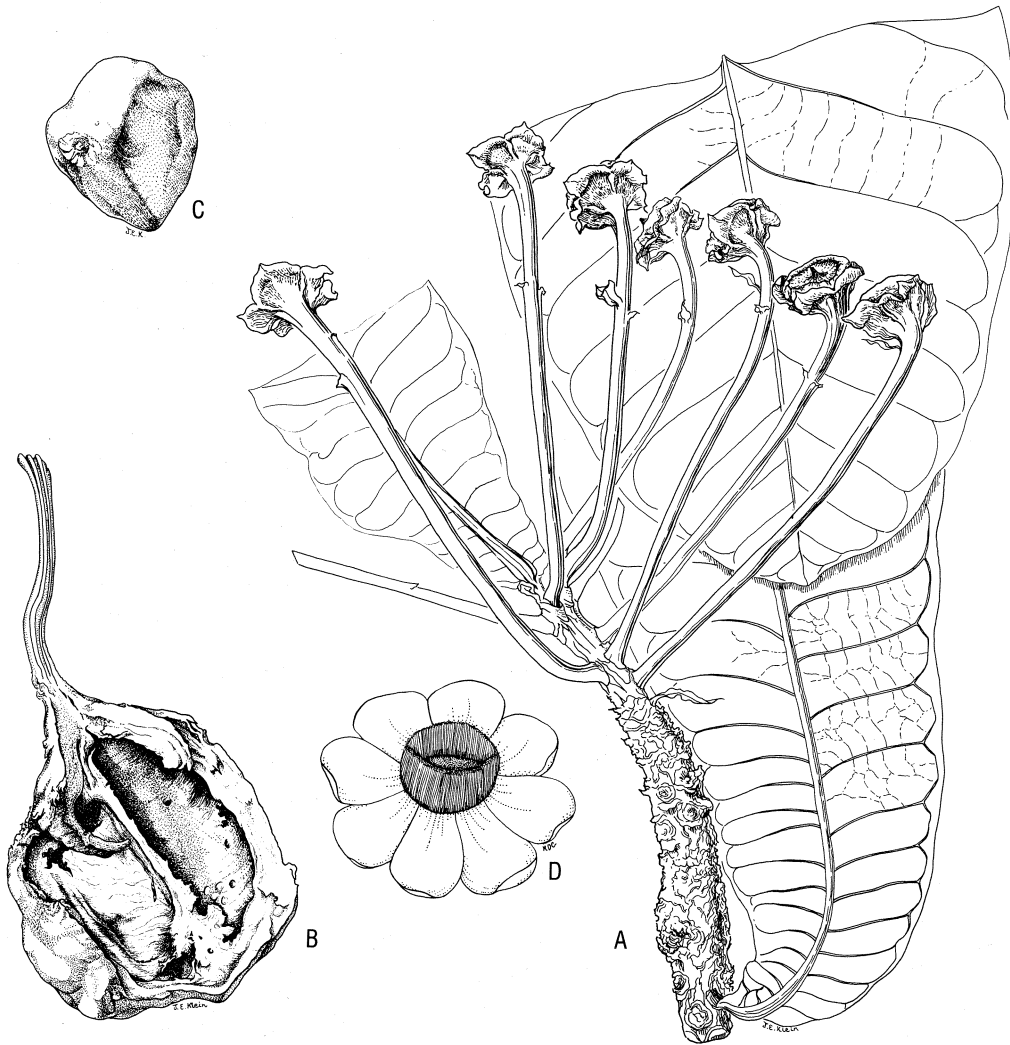


Plate 11. *Gustavia dodsonii* Mori. A, leaves, subterminal inflorescence, and very young fruits, note the obscure costae on the hypanthium (Gentry & Dodson 12048); B, mature fruit (Dodson s.n.); C, seed (Dodson s.n.); D, flower (Dodson & McMahon 5070).