

A New Scandent Species of *Aegiphila* (Verbenaceae) from Costa Rica

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ABSTRACT. In preparing the treatment of the Verbenaceae for the *Manual de la Flora de Costa Rica*, *Aegiphila* specimens with large, cupulate, *Quararibea*-like fruits were found. These turned out to be a new species, here described as *A. quararibea*. The new species is a canopy liana with the largest fruit of any lianescent species in the genus.

Aegiphila is a neotropical genus of about 150 species of shrubs, trees, and a few lianas. The species are found mainly in lowland, moist forests from Mexico, the West Indies, and Central America to Peru and northern Argentina (Rueda, 1992). According to the just-finished treatment of the family, the genus is represented in Costa Rica by ten species including this new one.

***Aegiphila quararibea* Rueda, sp. nov. TYPE:** Costa Rica. Heredia: Cantón de Sarapiquí, Llanura de San Carlos, Río Puerto Viejo, La Selva Biological Station, 50–150 m, 10°26'00"N, 84°01'00"W, 29 July 1993 (fl), R. Rueda, O. Vargas, B. Hammel, N. Zamora & R. Aguilar 1414 (holotype, CR; isotypes, AAU, BM, CAS, COL, DUKE, F, G, GH, HNMN, K, LE, MEXU, MO, NY, PMA, QCNE, US, WIS). Figure 1.

Frutex scandens, ramulis minute puberulis. Folia petiolata laminis ovatis vel ellipticis, subtus punctatis, glabris, membranaceis, 4.5–12 cm longis × 2–7.5 cm latis. Inflorescentiae axillares, 2.5–3.5 cm longae × 1.5–2.5 cm latae, ramulis fertilibus lateralibus. Calyx campanulatus, tubo 5–12 mm longo, 4-dentatus; corolla hypocrateriformis, luteola, tubo ca. 2 cm longo, lobis ca. 1 cm longis. Fructus 2.5–3 cm longus et latus. Calyx in fructu cupulatus, lignosus, fructum dimidio obtegens.

Liana 8 cm diam., climbing at least 20 m into the canopy, the branches terete, lepidote and minutely puberulous, longitudinally striate, lenticellate. Leaves ovate-elliptic, the apex acute to acuminate, the base obtuse to truncate, 4.5–12 cm long, 2–7.5 cm wide, membranaceous, 5–7 conspicuous lateral veins per side, the tertiary veins inconspicuous,

minutely scattered-puberulent above, glabrous to subpuberulous below; both surfaces dark glandular-punctate, but more so beneath; petioles 0.6–2 cm long, minutely pubescent, puberulous. Inflorescence axillary cymes, fleshy, mainly on lateral branches, 2.5–3.5 cm long, 1.5–2.5 cm wide; bracts foliaceous, ca. 5 mm long; bractlets subulate, ca. 2 mm long. Flowers with the calyx campanulate, mostly 4-dentate, thick, tube 5–12 mm long, 3–5 mm wide, teeth ca. 1 mm long; corolla hypocrateriform, fleshy, yellowish, tube ca. 2 cm long, 5–7 mm wide at mouth of tube, 4-lobed, the lobes ca. 1 cm long, the indument of bracts, bractlets, calyx, and corolla mainly glandular-lepidote with minute scattered-appressed trichomes, the corolla-tube pubescent inside, stamens 4, inserted in the corolla-tube at 4–6 mm below the mouth, filaments ca. 4 mm long, anthers ca. 1 mm long, slightly longer than the corolla-tube; stigma bifid, 12 mm long plus 6 mm of each branch; ovary oblong-ovate, 2.5 mm long. Fruit 2.5–3 cm long and wide; fruiting calyx cupulate, woody, covering half of the fruit.

This species is perhaps not uncommon in wet forest in Costa Rica as judged by fallen fruits that M. Grayum and B. Hammel remember having seen along the trails in La Selva Biological Station. However, these plants are difficult to see from the ground. Having a specimen in July 1993 from a fallen branch with the unusual large fruits, Orlando Vargas took us to what turned out to be the type locality. The few specimens available in herbaria, including the types, are from canopy lianas growing in tangles of other lianas in the tops of canopy trees and are virtually invisible from the ground without binoculars. We were able to collect the plant only after trying different tree-climbing and slingshot-rope saw methods. The branches collected with flowers in different stages in January also bore the calyces from the previous year.

Aegiphila quararibea is distinct within the genus by being a high climber with larger fruits than any other lianescent species in the genus. It is most similar in gross morphology to the Amazonian *A.*

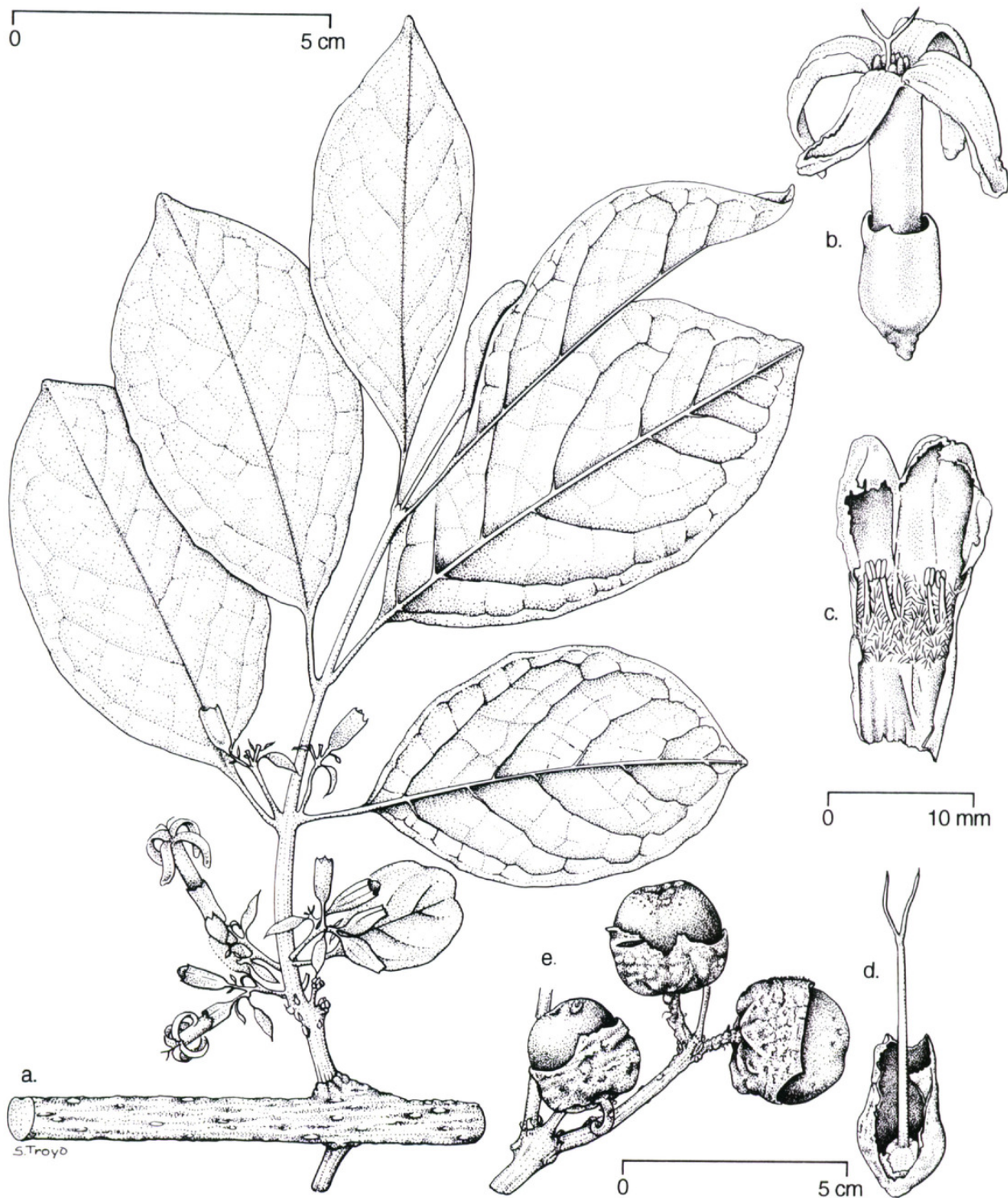


Figure 1. *Aegiphila quararibearia* Rueda. —a. Habit. —b. Flower. —c. Open corolla showing the insertion of the stamens and the pubescence on the tube. —d. Open calyx showing the ovary and the bifurcate style. —e. Fruit, half covered by the calyx. a–d from Rueda *et al.* 1414; e from Vargas 415. a, e: 5 cm scale bars; b, c, d: 10 mm scale bar.

macrantha Ducke, which has fruits nearly as large, but differently shaped and only basally covered by the calyx. *Aegiphila macrantha* also differs in having long-peduncled, more conspicuously bracteate inflorescences and corollas glabrous within. Among Mesoamerican species, *A. quararibearia* resembles

A. anomala Pittier, with which it shares axillary and relatively short-peduncled inflorescences and large fruits. However, these two species can easily be separated because *A. quararibearia* flowers are 4-merous, whereas *A. anomala* has 5-merous flowers and is a tree rather than a liana (Standley, 1938).

Paratypes. COSTA RICA. **Alajuela:** Monteverde Reserve, Atlantic side, 1,580–1,680 m, 25 May 1977 (fl), *Dryer 1397* (CR). **Heredia:** Cantón de Sarapiquí, Llanura de San Carlos, Río Puerto Viejo, La Selva Biological Station, 10°26'00"N, 84°01'00" W, 50–150 m, 29 July 1993 (fr), *Vargas 415* (CR, MO). **Puntarenas:** Cantón de Osa, N side of Rancho Quemado, on road to Estero Guerra, 8°43'30"N, 83°34'50"W, 320 m, 9 Mar. 1992 (fl), *Marín 413* (CR, MO, US).

Acknowledgments. I thank Michael Grayum and Barry Hammel for reviewing the manuscript, Silvia Troyo for the excellent drawing of the species, and the Museo Nacional/Herbario Nacional de Costa

Rica and the Instituto Nacional de Biodiversidad for providing facilities for the research. My travel to Costa Rica was supported by a grant from the National Science Foundation (BSR-9006449) awarded to the Missouri Botanical Garden.

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