

Excerpt from:

Anderson, W. R. 1981. Malpighiaceae in The botany of the Guayana Highland, Part XI. Mem. New York Bot. Gard. 32: 21–305.

4. *Verrucularia* Adr. Jussieu, Ann. Sci. Nat. 2^o Sér. Bot. **13**: 327. 1840.

Shrubs, the leaves eglandular, the stipules intrapetiolar and free or slightly connate. Inflorescence an unbranched, often corymbose, terminal thyrse or pseudoraceme composed of 1–several-flowered cincinni, the bracts and bracteoles eglandular and persistent. Sepals all biglandular, the neighboring glands of adjacent sepals sometimes connate. Petals yellow, the posterior relatively little differentiated except for a thicker claw. Stamens 10, the filaments glabrous, those opposite the sepals longer than those opposite the petals, the anthers alike, glabrous, deciduous, 4-locular, each of the outer locules bearing a line or cluster of vesicular outgrowths toward the apex. Receptacle glabrous. Ovary of 3 connate uniovulate carpels; styles 3, glabrous, subulate with minute apical stigmas, inbent at the apex in bud. Fruit schizocarpic, breaking apart into 3 (or fewer due to abortion), dry, 1-seeded cocci, the cocci dorsally loculicidal (in nature?) but not enough so to release the seed.

Type. *Verrucularia glaucophylla* Adr. Jussieu.

Verrucularia is closely related to *Galphimia*, and they have a similar schizocarpic fruit. The mericarps seem to be dehiscent along the dorsal suture, but in both groups it is difficult to say whether they are actually dehiscent before separating in nature, or split open on herbarium specimens in response to being pressed and dried.

Verrucularia comprises two species, the type and the new one described below.

Verrucularia piresii Anderson, sp nov

Figs 11 & 12.

Frutex? (“arbor”) 50 cm altus, ramulis sericeis. Lamina foliorum majorum 4–5.5 cm longa, 1.5–2.5 cm lata, elliptica, basi attenuata, margine revoluta, apice acuta, supra glabrata, subtus glabrata vel pilis perpaucis persistentibus praecipue costa obsita, nervis lateralibus numerosis tenuibus supra prominulis (in sicco), subtus obscuris, epidermide abaxiali olivacea, minute papillosa et stomatibus (?) translucentibus instructa; petiolus (8–)10–13 mm longus, sericeus vel demum subglabratus; stipulae 1.5–2 mm longae, triangulares, apice obtusae, ± liberae, abaxialiter sericeae, adaxialiter glabrae. Inflorescentia usque 6 cm longa, sericea, cincinnis 1–2-floris, bracteis 2.5–4.5 mm longis, linearibus, denticulatis, glabris vel basi paucipiliferis, pedunculo primario 4–8 mm longo sub apice bibracteolato, bracteolis bracteis similibus sed brevioribus. Pedicellus 6–8 mm longus, sericeus vel glabrescens. Sepala glandulas 0.8–1.5 mm longas obovatas decurrentes 2–2.5 mm superantia, ca 1.3 mm lata, apice rotundata, plana, glabra, integra vel irregulariter denticulata. Petala glabra, ungue 2–3 mm longo, limbo 4–5 mm longo, plano vel carinato, denticulato. Stamina filamentis 2.7–4 mm longis, 1 mm connatis, antheris 1–1.2 mm longis, verruculis usque 0.3 mm latis, dissectis, per $\frac{2}{3}$ longitudinem loculorum extensis. Ovarium sphaeroideum, 1.5 mm altum, proximaliter minute sericeum distaliter glabrum, stylis 3.5 mm longis. Fructus ignotus.

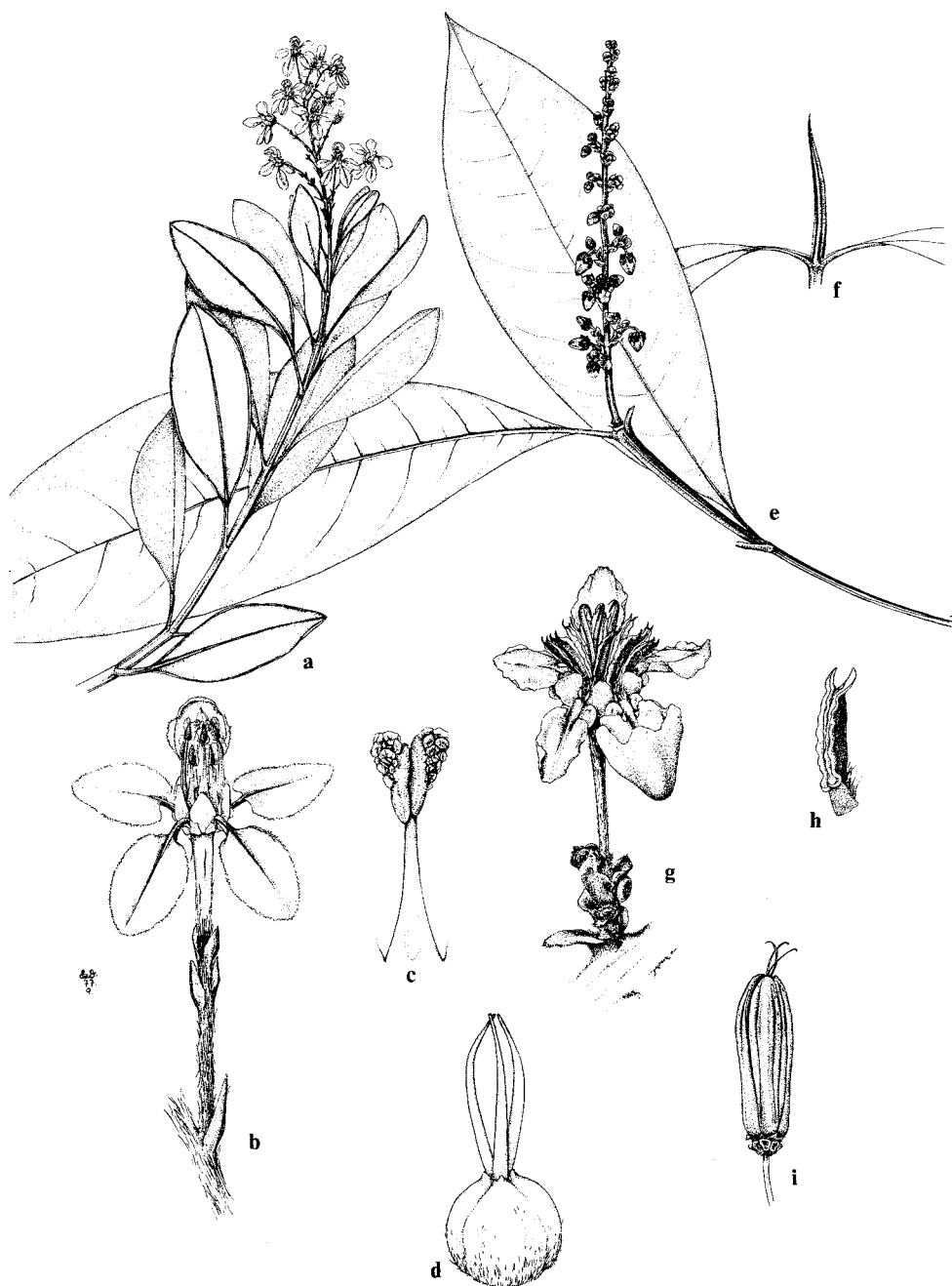


Fig 11. *Verrucularia piresii* and *Glandonia prancei*. a–d, *Verrucularia piresii*: a) Flowering branch, $\times 0.5$; b) flower, $\times 2.5$; c) stamen, $\times 10$; d) gynoecium, $\times 7.5$. e–i, *Glandonia prancei*: e) Flowering branch, $\times 0.5$; f) stipules, $\times 1$; g) flower, $\times 2.5$; h) stamen, $\times 5$; i) fruit, $\times 1$. Drawn by Karin Douthit, a–d from Pires 15040, e–f from Prance et al 8058, g–h from Prance et al 3363, i from Prance et al 20557.

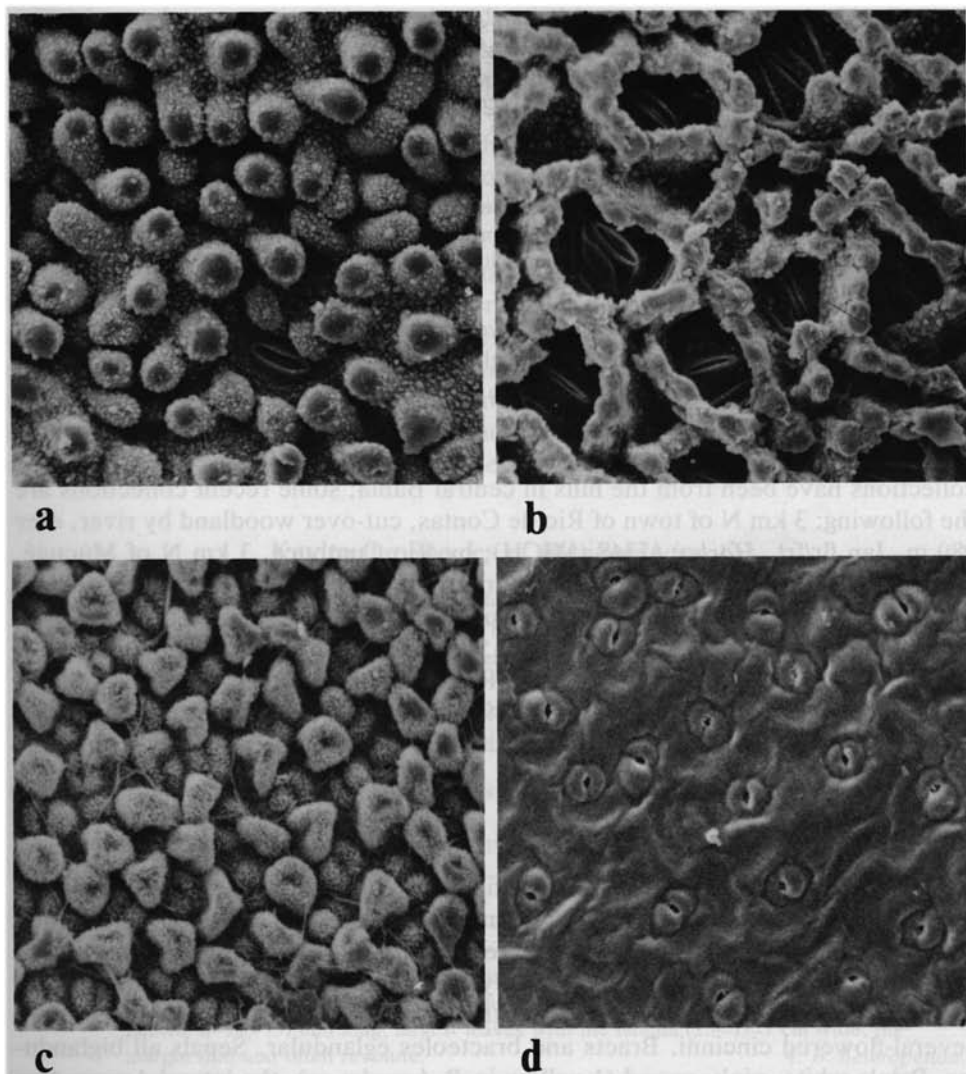


Fig 12. Lower epidermis of *Verrucularia* and *Glandonia*. SEM micrographs. a) *V. piresii*, $\times 250$, Pires 15040; b) *V. glaucophylla*, $\times 250$, Harley 15348; c) *G. williamsii*, $\times 375$, Maguire et al 36493; d) *G. macrocarpa*, $\times 375$, Ducke 63.

Type. Pires 15040, Serra Aracá, elev 1000 m, Amazonas, Brazil, 10 Feb 1975 (holotype IAN 145476, isotype MICH).

This most interesting species is known only from the type, collected by João Murça Pires, for whom the species is named. Prance (1976) states that the Serra Aracá is about 1°N , 63°W . That is an astonishing disjunction from central Bahia where *Verrucularia glaucophylla* grows. The two species must have been separated for a very long time, but there has been only slight morphological divergence. They can be distinguished on the following bases; further collections of *V. piresii* may reveal more differences.

Key to the Species of *Verrucularia*

1. Leaves acute at the apex, olive-green below, the epidermis minutely but densely and evenly papillose (Fig 12a); petiole (8–)10–13 mm long; petals glabrous; anthers 1–1.2 mm long, bearing 1–3 distinct outgrowths on each side; ovary proximally sericeous, distally glabrous. *V. piresii*.
1. Leaves broadly rounded and often apiculate or emarginate at the apex, whitish below, the epidermis bearing a reticulate pattern of raised white cells forming crypts surrounding sunken stomates^a (Fig 12b); petiole 2–6 mm long; petals often bearing at least a few hairs on the claw and midrib; anthers ca 0.7 mm long, bearing undivided apical outgrowths; ovary uniformly spreading-sericeous to pilose. *V. glaucophylla*.

In addition to these differences, *V. glaucophylla* has more persistent hairs on its leaves than *V. piresii*, and its calyx glands are larger and less decurrent.

Verrucularia glaucophylla Adr. Jussieu was published in the "Malpighiacearum synopsis," Ann. Sci. Nat. 2^e Sér. Bot. 13: 327. 1840. Its type is *Martius 1921* (M) from the Serra da Villa do Rio de Contas, Bahia, Brazil. All subsequent collections have been from the hills in central Bahia; some recent collections are the following: 3 km N of town of Rio de Contas, cut-over woodland by river, elev 980 m, Jan flr/frt, *Harley 15348* (MICH); by Rio Cumbuca, 3 km N of Mucugé, Serra do Sincorá, conglomerate sandstone rock, elev 850 m, Feb flr/frt, *Harley 16027* (K); S of Andaraí near Xique-Xique, Serra do Sincorá, Feb flr/frt, *Harley 18671* (MICH); Rio do Ferro Doido, 19.5 km SE of Morro do Chapeu, Mar flr/frt, *Harley 19193* (MICH); S of Vila do Rio de Contas, Mar flr/frt, *Harley 20076* (MICH); Rio Agreste, *Hatschbach 39692*, and Rio Ferro Doido, *Hatschbach 39705* (both MICH); Rio Ferro Doido, sand on sandstone, elev 1100 m, Feb flr, *Irwin et al 32437* (MICH).