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# *Rudgea tayloriae* (Rubiaceae), an Unusual New Species from the Eastern Slopes of the Venezuelan Andes

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**ABSTRACT.** *Rudgea tayloriae* (Rubiaceae), a new species from the eastern slopes of the Venezuelan Andes, is described and illustrated, and its relationships are discussed.

70°09'51"W, 2300 m, 3–5 Jan. 1996 (fl, fr), N. Cuello, R. González, C. Orúa & A. González 1350 (holotype, PORT; isotypes, MO, US, VEN). Figure 1.

*Rudgea* Salisbury is a neotropical genus of ca. 150–170 species (Dwyer, 1980; Taylor et al., 1991; Taylor, 1996), most of which are South American. Andersson's (1992) checklist of neotropical Rubiaceae included 214 species names, but his objective in compiling the list was not to make taxonomic decisions, and a number of the names he cited are clearly synonyms. Steyermark (1974) recognized 28 species of *Rudgea* in his treatment of the Venezuelan Rubiaceae. Subsequently, Steyermark (1981, 1988) described an additional four species of *Rudgea* from Venezuela.

Species nova quae a *Rudgea hospes* Standley & Steyermark floribus sessilibus, corollis purpureis, tubo 3–4 mm longo, lobis 1–1.5 mm longis, filamentis ca. 1 mm longis, papillatis, basi tubi affixis, antheris ca. 2.5–3 mm longis, stigmatibus furcato differt.

The valvate corolla lobes, 2-celled ovary, and fleshy drupe with two pyrenes place *Rudgea* in the subfamily *Rubioideae* tribe *Psychotrieae* A. Richard ex Dumortier (Robbrecht, 1988; Taylor, 1996). *Rudgea* is similar to *Palicourea* Aublet and *Psychotria* L., but it usually can be separated from these closely related genera by the pectinate or fimbriate appendages on its stipules (Steyermark, 1974; Standley & Williams, 1975; Dwyer, 1980; Taylor, 1996). This stipule character, however, can present practical problems in identifying material since the stipules frequently are caducous, as has been noted earlier by Taylor et al. (1991).

Small trees to 8 m tall, branches and branchlets glabrous throughout. Leaves opposite, decussate; blades elliptic to ovate-elliptic, 5–11 cm long, 2.5–7 cm wide, acuminate at apex with the tip up to 2–2.3 mm long, acute at base, margin entire, glabrous and well reticulated on upper surface, glabrous underneath, except along the midrib and lateral nerves, which are sparsely appressed-pubescent to puberulent when mature, lateral nerves 7–10 pairs, convergent and linking toward margin; petioles 5–13 mm long, ca. 1 mm thick, subcanaliculate, sparsely appressed-pubescent at first, glabrous when mature. Stipules interpetiolar, ciliate, caducous, briefly persistent only on uppermost 1–2 nodes, united around the stem into a cupuliform structure, 1.5–4 mm long, rounded to truncate apically, sparsely appressed-pubescent at first, glabrous when mature, with 6–8 projections ca. 1 mm long. Inflorescences terminal, spiciform to subcapitate, 1.5–2.5 cm long (or unexpanded?), appressed-pubescent with white trichomes; bracts subtending the flowers subulate, 4–8 mm long, apex with the tip 0.5–2 mm long, shortly appressed-pubescent externally, glabrous internally. Flowers sessile, calyx ca. 2 mm long, cupuliform, puberulent to densely appressed-pubescent at the base exter-

***Rudgea tayloriae*** Aymard, Dorr & Cuello, sp. nov.

TYPE: Venezuela. Trujillo: Dto. Boconó, Parque Nacional Guaramacal, selvas nubladas de la vertiente sur, aprox. 9°12'45"N,

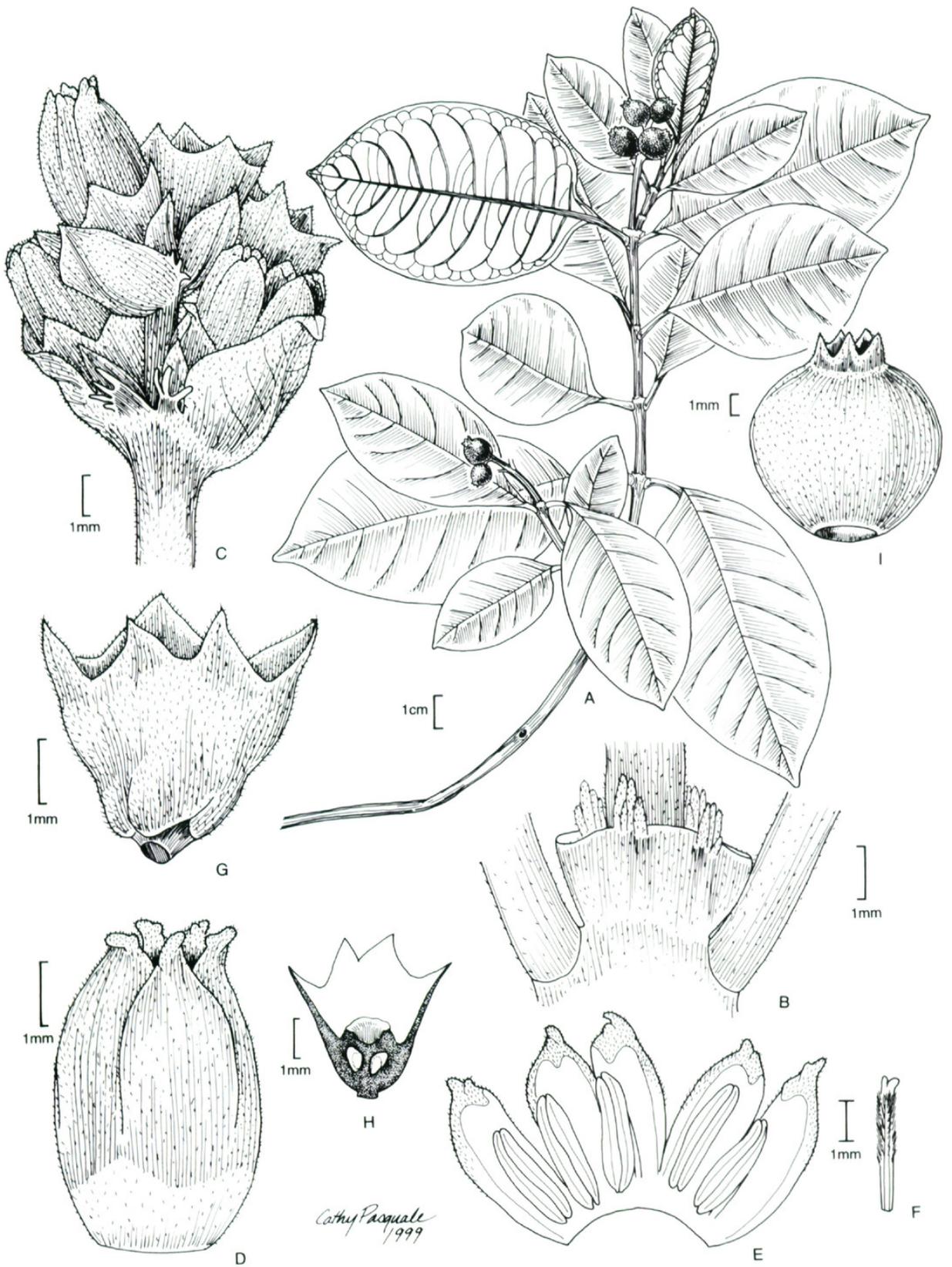


Figure 1. *Rudgea tayloriae* Aymard, Dorr & Cuello. —A. Habit. —B. Stipule. —C. Inflorescence (immature). —D. Corolla (immature). —E. Corolla, opened to show anthers (immature). —F. Style and stigma. —G. Calyx. —H. Longitudinal section through calyx and hypanthium. —I. Fruit. A, C–I drawn from *Cuello et al. 1350* (PORT) and B from *Cuello et al. 1310* (US).

nally, puberulent internally, 5-lobed, the lobes ca. 0.5 mm long, triangular, persistent in fruit; corolla purple, evidently funnellform, but shortly rounded or constricted at the apex (mature flowers not seen), the tube 3–4 mm long, short appressed-pubescent to puberulent externally, glabrous internally, 5-lobed, the lobes 1–1.5 mm long, pubescent as the tube; stamens 5, inserted at the base of the tube (in immature flowers?), filaments ca. 1 mm long, glabrous, papillate, anthers 2.5–3 mm long, oblong, glabrous; style ca. 2 mm long, barbate apically, stigma bifurcated, barbate basally, 1 mm long. Fruit ovoid, black, 9–10 mm long, 6–7 mm wide, sparsely pilose to glabrous when mature, subtended by one bract.

*Distribution and habitat.* *Rudgea tayloriae* is known only from the type locality on the eastern slopes of the Andes in Trujillo state, Venezuela, where it has been collected in moist cloud forest from 1950 to 2300 m. Flowers and fruit are known only from January.

*Rudgea tayloriae* appears to be most similar to *R. hospes* Standley & Steyermark, which also is endemic to the Venezuelan Andes. The lateral branches of the inflorescences of both species are not developed, and the lateral nerves on the upper leaf surfaces are convergent and linking toward the leaf margins. *Rudgea tayloriae* differs from *R. hospes* in having sessile (vs. shortly pedicellate with pedicels 1–2.5 mm long) flowers, purple (vs. white) corollas, smaller (3–4 mm vs. ca. 7 mm long) corolla tubes, smaller (1–1.5 mm vs. ca. 5.5 mm long) corolla lobes, shorter (ca. 1 mm vs. 2.8–3 mm long) filaments, and shorter (2.5–3 mm vs. ca. 5 mm long) anthers. Also, the filaments of *R. tayloriae* are papillate (vs. smooth), evidently inserted at the base (vs. middle) of the corolla tube, and the stigmas are bifid (vs. undivided).

The appendages on the corolla lobes of *Rudgea tayloriae* are distinctive and further serve to distinguish this new species from *R. hospes*, which lacks appendages on the corolla lobes. The purple corollas of *R. tayloriae* are remarkable in that the majority of species in the genus seem to have white

corollas. In addition, the black fruits are unusual in the genus, which usually has white fruits at maturity (Taylor, 1996).

We take pleasure in naming this new species after Charlotte M. Taylor (b. 1955), who initially drew the attention of the first author to its distinctive characters, and who has made significant contributions to our knowledge of neotropical Rubiaceae.

*Paratypes.* VENEZUELA. **Trujillo:** Ditto. Boconó, Parque Nacional Guaramacal, selvas nubladas de la vertiente sur, 9°12'28"N, 70°09'41"W, 1950 m, 19–22 Dec. 1995 (st), *Cuello et al.* 1310 (PORT, US), 1312 (MO, PORT, US), aprox. 9°12'45"N, 70°09'51"W, 2300 m, 3–5 Jan. 1996 (st), *Cuello et al.* 1331 (MO, PORT, US), aprox. 9°13'N, 70°07'W, 2100 m, 20–22 Dec. 1996 (st), *Licata et al.* 673 (PORT, US).

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#### Literature Cited

- Andersson, L. 1992. A provisional checklist of neotropical Rubiaceae. *Scripta Bot. Belg.* 1: 3–199.
- Dwyer, J. D. 1980. Rubiaceae—Part II. In: R. E. Woodson, Jr. & R. W. Schery (editors), *Flora of Panama*, Part IX. *Ann. Missouri Bot. Gard.* 67: 257–522.
- Robbrecht, E. 1988. Tropical woody Rubiaceae. *Opera Bot. Belg.* 1: 1–271.
- Standley, P. C. & L. O. Williams. 1975. Rubiaceae. *Flora of Guatemala*, part. XI, nos. 1–3. *Fieldiana, Bot.* 24(11, 1–3): 1–274.
- Steyermark, J. A. 1974. Rubiaceae. In: T. Lasser (editor), *Flora de Venezuela* 9(2): 603–1101.
- . 1981. New species of Rubiaceae from Venezuela. *Pittieria* 9: 5–16, tt. 1–3.
- . 1988. *Flora of the Venezuelan Guayana—IV.* *Ann. Missouri Bot. Gard.* 75: 311–351.
- Taylor, C. M. 1996. Overview of the Psychotriaceae (Rubiaceae) in the Neotropics. In: E. Robbrecht, C. Puff & E. Smets (editors), *Second International Rubiaceae Conference Proceedings.* *Opera Bot. Belg.* 7: 261–270.
- , J. Gómez-Laurito & J. Dwyer. 1991. *Rudgea monofructus* (Rubiaceae), an unusual new species from Costa Rica. *Novon* 1: 50–51.



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