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# A New *Tassadia* (Apocynaceae, Asclepiadoideae) from Bolivia and Brazil

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**ABSTRACT.** *Tassadia capitata*, from Santa Cruz, Bolivia, and Pará, Brazil, is described and illustrated. This new species is most closely related to *T. guianensis* Decaisne, and the two species are somewhat intermediate between *Tassadia* and *Stenomeria*.

**Key words:** Apocynaceae, Asclepiadoideae, Bolivia, Brazil, *Stenomeria*, *Tassadia*.

*Tassadia* Decaisne is a genus of about 25 species of tropical and subtropical South America, with one species, *T. obovata* Decaisne, ranging through Central America to Veracruz, Mexico. *Tassadia* belongs to the tribe Asclepiadeae and is most closely related to the genus *Stenomeria* Turcz. The two genera share, in particular, an unusual arrangement of the inflorescences. The true inflorescence is an extra-axillary cyme, which is the normal inflorescence of the Asclepiadoideae. However, these sessile or nearly sessile, congested cymes are mostly arranged along leafless axillary branches; cymes associated with leafy nodes are also occasionally produced. These inflorescences have been described as thyrses or pleiothyrses (Fontella, 1977; Morillo, 1990), but those terms refer to mixed inflorescences in which the primary axes are paniculate and the ultimate axes cymose (Jackson, 1928). Liede and Weberling (1995) also considered the leafless branches to be inflorescences and erroneously compared them with the true, extra-axillary inflorescences of *Tylophora*, which are superficially similar. Liede and Meve (2001) repeated the error in considering the inflorescences of *Tassadia* to be "lax." *Stenomeria* differs from *Tassadia* in having rostrate and glabrous style apices, strongly contorted corolla lobes, and slender and symmetrical follicles. In *Tassadia*, only this new species and *T. guianensis* have elongate style apices and in both cases they are penicillate, the corolla lobes are slightly to not at all contorted, and the follicles, when known, tend to be broad and/or asymmetrical.

***Tassadia capitata*** W. D. Stevens, sp. nov. TYPE: Bolivia. Santa Cruz. Velasco Prov.: Parque Nacional Noel Kempff Mercado, Arroyo Las Londras, a 15 km al N del empalme hacia el aserradero Choré, bosque inundado temporalmente, siempreverde, 14°24'18"S, 61°08'40"W, 150 m, 10 Oct. 1996, A. M. Carrión, R. Guillén, M. Garvizú, P. Soltz, J. Huffman & L. Saucedo 360 (holotype, MO; isotype, USZ). Figure 1A–D.

A *Tassadia guianensi* Decaisne apice styli capitato dignoscenda.

Twining (to right) vine, lower parts unknown, stems densely puberulent with curved, multicellular, red-tipped hairs 0.2–0.4 mm long; sap white. Leaves opposite, without pseudostipules, blade 3.6–7.5 × 1.7–4.2 cm, elliptic, apex abruptly acuminate, base acute to obtuse or nearly rounded, glabrous above except with a line of hairs on midrib, densely and uniformly puberulent below, lateral veins 4 to 7, colleters 2; petiole 4–8 mm long, puberulent. Inflorescence extra-axillary, 1 per node, congested-cymose, arranged on leafless or nearly leafless axillary or terminal branches with the appearance of inflorescences or occasionally with isolated inflorescences at leafy nodes, peduncle absent to 1 mm long, pedicel 0.5–1.2 mm long, bracts 0.6–0.7 × 0.4–0.7 mm, ovate; calyx divided to base, with 0–2 colleters per sinus, lobes ovate to lanceolate with acute to obtuse tips, 0.8–1.4 × 0.5–0.9 mm, apparently green, glabrous to sparsely puberulent along midrib outside, glabrous inside; corolla campanulate at base, aestivation weakly contorted and dextrorse, white with a yellow or green tint, tube 0.7–1.5 mm long, glabrous outside, barbate inside with glassy, unicellular hairs ca. 0.1 mm long, lobes narrowly lanceolate with acute tips, erect, 2.6–3.6 mm long, 0.8–0.9 mm wide at base, glabrous outside, inside with margins densely puberulent with white, unicellular hairs ca. 0.05 mm long; androecium and gynoecium entirely fused and forming a short-stipitate gynostegium; corona gynostegial, adnate to gynostegium at base, of 5 free lobes opposite the anthers, these rounded and with

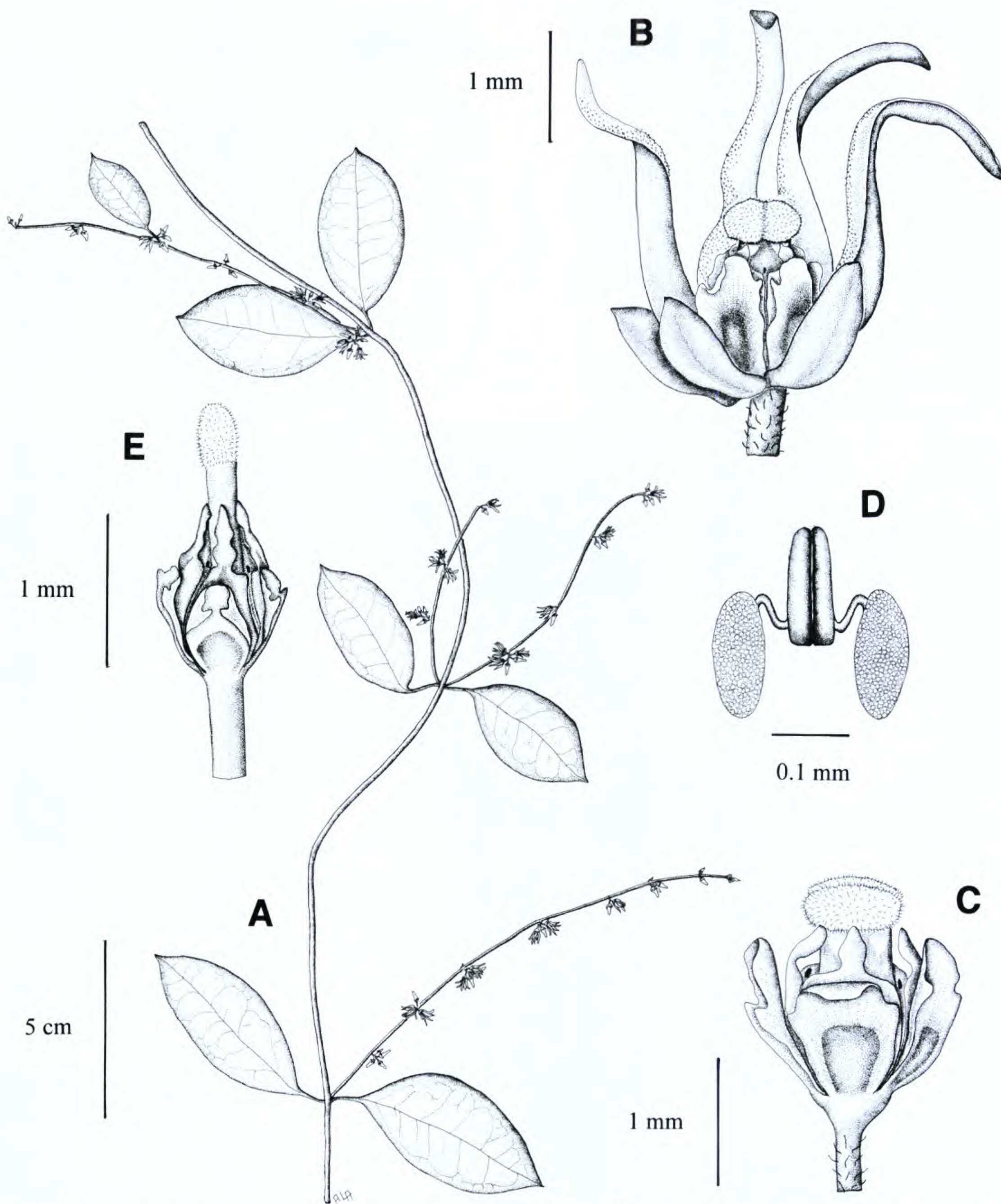


Figure 1. A–D, *Tassadia capitata* W. D. Stevens (*Carrión et al.* 360, MO). —A. Flowering branch. —B. Flower with corolla partially removed. —C. Corona and gynostegium. —D. Pollinarium. —E. *Tassadia guianensis* (*Kappler* 1410, Suriname: Para, Feb. 1844, MO). Corona and gynostegium.

2 small lateral teeth, 0.6–0.9 mm long, 0.5–0.8 mm wide at base; anthers quadrate, ca. 0.5 mm long and wide, 2-celled, terminal appendages ovate, appressed to base of style apex, guide rails linear, ca. 0.5 × 0.05 mm; corpusculum 0.12–0.13 × 0.06–0.09 mm, ellipsoid, pale brown, translators 0.05–0.08 mm long, terete, somewhat sigmoid, pollinia

pendent, 0.15–0.18 × 0.05–0.08 mm, ellipsoid; style apex capitate, somewhat bilobed, 0.7–0.8 mm long, 0.5–0.8 mm wide at tip, dilated apex densely penicillate with projections ca. 0.1 mm long. Fruits and seeds unknown.

This new species is similar to *Tassadia guianen-*

sis (Fig. 1E) and probably closely related. The two species share an elongate and penicillate style apex, otherwise unknown in the genus. *Tassadia capitata* differs from *T. guianensis* in many details, including having the corolla lobes longer and narrower with shorter, more appressed hairs, having the corolla tube barbate within, as opposed to glabrous, having larger corona lobes that exceed in length and cover the anthers, having quadrate rather than radially trapezoidal anthers and consequently the guide rails are vertical instead of flaring, and by a style apex that is distinctly capitate and prominently penicillate, as opposed to subcylindrical to conical and obscurely penicillate. Fontella (1977) revised the genus and cited specimens of *T. guianensis* from the Guianas, Amazonian Peru, and the Brazilian state of Pará, and it has since been discovered in Amazonian Ecuador, while this new species is known from Bolivia and Pará, Brazil.

Both Fontella (1977) and Morillo (1990) have pointed out the close relationship of *Tassadia* and *Stenomeria*, with *T. guianensis* being the most intermediate. This new species is likewise intermediate but again the preponderance of characters suggests keeping the genera separate and placing the new species in *Tassadia*.

*Paratypes.* BOLIVIA. **Santa Cruz:** Velasco Province, Parque Nacional Noel Kempff Mercado, Arroyo Las Londras, bosque de sartenejal, estacionalmente inundado, 14°24'09"S, 61°08'35"W, 150 m, 10 Oct. 1996, *M. Garvizú, A. M. Carrión & R. Guillén 184* (MO, USZ). BRAZIL. **Pará:** Parque Nacional do Tapajós, Km 60 da estrada Itaituba–Jacarecanga, ilha em frente ao Pimental, mata de várzea, 26 Nov. 1978, *M. G. Silva & C. Rosário 3976* (MO).

*Acknowledgments.* Alba Arbeláez (MO) prepared the illustration. The helpful comments of Victoria Hollowell (MO), Steven Lynch (LSUS), and Eric Sundell (UAM) stimulated improvements in the manuscript.

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