

TONDUZIA, A NEW GENUS OF APOCYNACEAE FROM CENTRAL AMERICA.

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Tonduzia Pittier, gen. nov.

Calyx small, deeply incised, with 5 imbricate, rounded-triangular, obtuse divisions, these scarious on the margin, two of them exterior: corolla salver-shaped, with a long, narrow tube, enlarged at the insertion of the stamens, and 5 linear-oblong, sinistrorse divisions: discus cupuliform: stamens 5, inserted on lower half or about the middle of the tube of the corolla: filaments short and slender: anthers cordate-lanceolate, acute: ovary bicarpellate, with over 12 ovules disposed in 2 rows in each carpel: style parted either only at base or for about one-third of its whole length and bearing at its upper part a thick, broad disk, from this emerging a claviform, more or less distinctly cleft, minutely hirsute stigma: follicles 2, pendent, cylindrical, apiculate, broadly diverging, opening at maturity along a ventral line: seeds flattened, obovate-elliptic, fixed by an almost indistinct umbilic and ciliate all around their narrow edge.—Trees or shrubs with 4-verticillate, penninerve, smooth, more or less coriaceous leaves, forming clusters at the end of the branchlets. Flowers numerous, small, glabrous, in terminal or pseudoterminal cymes.

Near to *Aspidosperma*, from which it differs by its long, cylindrical follicles, its short umbilical string, its fringed and not winged seeds, and a few other minor characters.

Tonduzia parvifolia Pittier, sp. nov.

FIGURES 5, 6.

Leaves coriaceous, smooth, lanceolate, acute and attenuate at base, long-acuminate, 6 to 12 cm. long, 0.8 to 2 cm. broad, with the 16 to 20 pairs of secondary nerves more or less distinctly apparent in dark lines on the inferior, paler face; petioles 0.5 to 1.5 cm. long; margin entire, revolute; bracteoles in whorls at base of pedicels, very small, ovate-oblong; pedicels 2 to 3 mm. long in flower, 6 to 12 mm. in the mature fruit; calyx verrucose, minutely hirsute at base, persistent, 0.8 to 1.2 mm. long; corolla white: tube 4 to 5 mm. long, inflated in lower half, enlarged and hairy inside at throat; lobes of corolla 2 to 3 mm. long; discus cupuliform, with deeply lobulate margin; anthers cordate, lanceolate, slightly hairy, pollen spherical; style minutely hirsute, scarcely cleft at base; styler disk higher than broad, conical; stigma claviform but distinctly cleft; follicles striate, rather thick, slightly depressed, 8 to 11 cm. long, 12 to 15 mm. in circumference; seeds

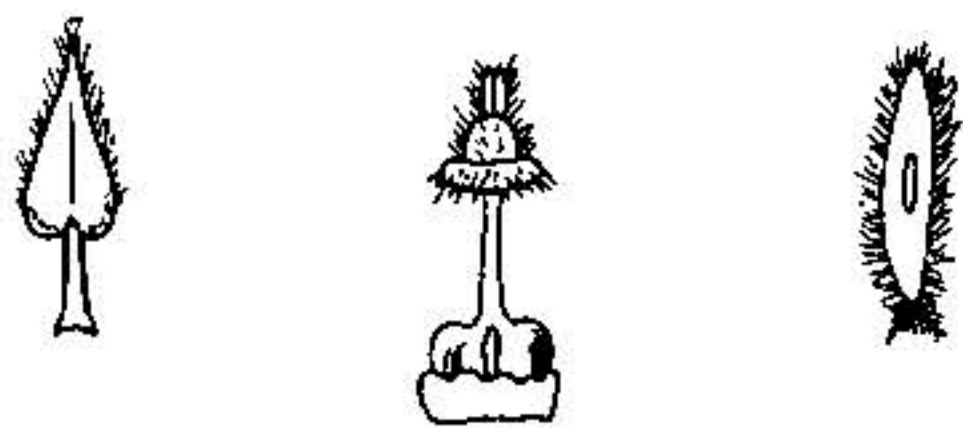


FIG. 5.—Stamen, pistil; and seed of *Tonduzia parvifolia*. Much enlarged.

fish-like, neatly ciliate, 13 to 15 mm. long, 3 to 4 mm. broad, including ciliate margin.

Hacienda Belmira, near Santa Maria de Dota, Costa Rica, altitude 1,450 meters, Tonduz, January, 1898, flowers and fruit (Instituto físico-geográfico de Costa Rica, no. 11619) ; Angostura, near Turrialba, altitude about 700 meters, Cook & Doyle, no. 33, April 11, 1903 (U. S. National Herbarium, no. 577471, type).

Tonduzia stenophylla (Donnell Smith) Pittier.

PLATE IX.

Rauwolfia stenophylla Donnell Smith, Bot. Gaz. 44: 115, 1907.

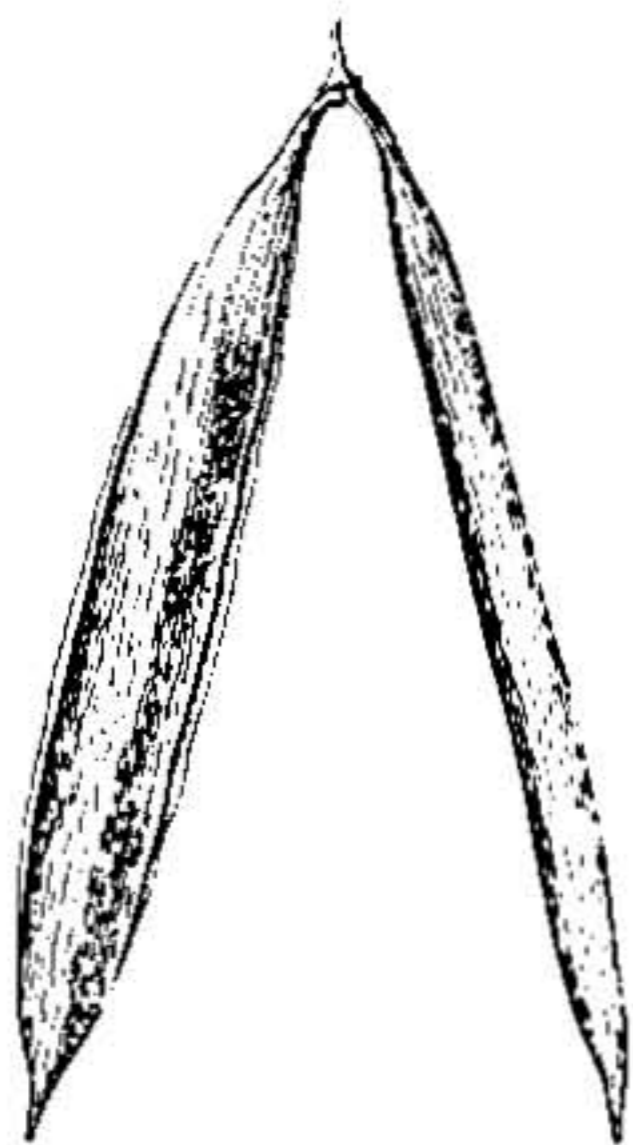


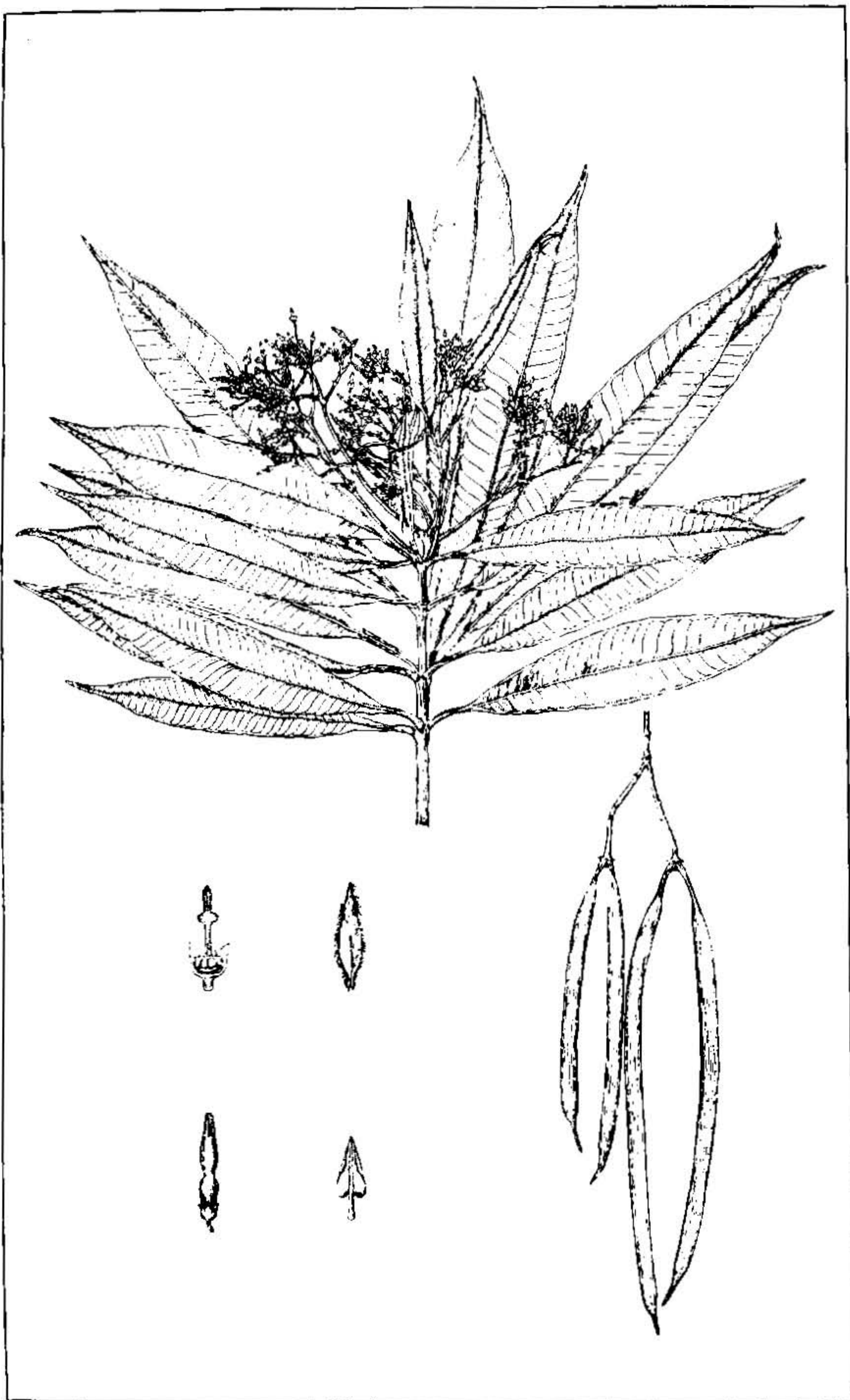
FIG. 6.—Fruit of *Tonduzia parvifolia*. One-half natural size

Glabrous; upper internodes 8 to 20 mm. long; leaves elliptic-lanceolate, attenuate, chartaceous, varying in size in the same whorl, 9 to 17 cm. long, 1 to 3 cm. broad; secondary nerves 30 to 35 pairs, arcuate near the margin; veins indistinct; petioles canaliculate, 7 to 18 mm. long; cymes pseudoterminal, corymbiform, reaching about one-third of the length of the nearest leaves, dichotomous and many-flowered; pedicels 2 to 6 mm. long; bracteoles 0.5 mm. long; calyx with rounded-triangular tips, 1.5 mm. long; tube of corolla puberulent outside, hirsute inside, about 2 mm. long, lobes of equal length or slightly shorter; stamens inserted on lower half of tube, glabrous; carpels separate, style cleft for about the first third of its lower length; follicles cylindrical, apiculate, smooth or very finely striate longitudinally, 7 to 13 cm. long; seeds flattened, obovate-elliptic, delicately ciliate.

Around San Salvador, Salvador, altitude 800 to 1,000 meters, Carlos Renson, no. 289, 1905, flowers; no. 335, 1906, fruit (both U. S. National Herbarium).

EXPLANATION OF PLATE IX.—Leafy branch and fruit, one-half natural size; pistil, seed, bud, and stamen variously magnified.

Specimens with flowers were first received and, not being able to identify them myself satisfactorily, I had them forwarded to Captain Donnell Smith, who, misled by the very similar floral structure, described them as a new species of the genus *Rauwolfia*. Meanwhile I had been studying no. 11619 of the herbarium of the Instituto físico-geográfico de Costa Rica, arriving at the conclusion that it belonged to an undescribed genus. About the time Mr. Donnell Smith published his new species I was greatly surprised to receive from Doctor Renson a fruiting specimen of the Salvadorean plant, which showed at a glance Captain Donnell Smith's mistake, and also the close affinity of his *Rauwolfia stenophylla* to my *Tonduzia parvifolia*.



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TONDUZIA STENOPHYLLA · DONNELL SMITH · PITTIER.