

A New Species of *Cordia* (Cordiaceae, Boraginales) from Brazil

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ABSTRACT. A new species from Brazil, *Cordia pilosa* M. Stapf & Taroda (Cordiaceae), is described from northeastern Brazil. Illustrations and data on habitat, distribution, and phenology are provided. The new species belongs to *Cordia* sect. *Superbiflorae* Taroda, and it is distinguished from similar species in section *Superbiflorae* by its compact inflorescences and the pilose indument on the twigs, leaves, and inflorescence axes.

RESUMEN. Se describe e ilustra una nueva especie para el noreste de Brasil: *Cordia pilosa* M. Stapf & Taroda (Cordiaceae). También se presentan datos sobre su hábitat, distribución y fenología. Esta nueva especie pertenece a *Cordia* sect. *Superbiflorae* Taroda, y se distingue de las especies similares de la sección *Superbiflorae* por sus inflorescencias compactas y sus ramas jóvenes, hojas y ejes de las inflorescencias con indumento piloso.

Key words: Bahia, Brazil, *Cordia*, Cordiaceae, IUCN Red List.

Cordia L. is the largest genus of Cordiaceae, with about 250 species, and its distribution is pantropical (Miller, 2001; Miller & Gottschling, 2007). In Brazil, approximately 45 species occur, most concentrated in evergreen lowland and seasonally dry tropical forest. During the study of the Brazilian species of *Cordia*, the taxonomic novelty *C. pilosa* M. Stapf & Taroda was recorded from the states of Alagoas, Bahia, and Sergipe in northeastern Brazil.

Cordia pilosa belongs to *Cordia* sect. *Superbiflorae* Taroda, a natural group distributed mainly in northeastern and southeastern Brazil. This section is characterized by its whitish large corolla (more than 1.5 cm long) and its fruit that is halfway surrounded by the persistent calyx (Taroda & Gibbs, 1986).

***Cordia pilosa* M. Stapf & Taroda, sp. nov. TYPE:**
Brazil. Bahia: Entre Rios, rd. Conde-Esplanada,

11°46'17"S, 37°44'05"W, 23 Jan. 2004, M. N. S. Stapf 228 (holotype, HUEFS; isotype, SJRP). Figure 1.

Haec species inter congeneros ad *Cordiam* sect. *Superbifloras* Taroda pertinentes quoad floribus grandibus *Cordiae superbae* Cham. et *C. rufescenti* A. DC. arcte affinis, sed a hac corolla majore, ab omnibus indumento piloso atque corollae lobis reflexis differt.

Shrub to 4.5 m tall; bark grayish, finely fissured; twigs densely pilose, trichomes ca. 2 mm, brown. Leaves persistent, homomorphic; petioles 1.4–1.7 cm, pilose; blade oblanceolate to elliptic, 24.0–30.2 × 6.4–8.5 cm, apex acute to slightly acuminate, base cuneate, margin entire, adaxial surface glabrescent, with trichomes on the major veins, abaxial surface pilose; venation brochidodromous, midrib slightly prominent or even on adaxial surface, prominent on abaxial surface, secondary veins 11 to 13, tertiary venation reticulate. Inflorescences terminal, cymose, condensed, 4.5–5.8 cm wide, branches as cincinnus, pilose, trichomes 2–3 mm. Flowers bisexual, distylous; calyx tubular, 12.2–13.0 × ca. 6 mm (width at the mouth), striate, unevenly 2-lobed; corolla white, funnel-shaped, 3.8–4.0 cm, lobes reflexed; stamens 5, filaments 13–16 mm, uneven, base pilose, trichomes ca. 1 mm; ovary ovoid, ca. 3 × 1.8 mm, glabrous, style 18–20 mm (short-styled flowers) or 30–34 mm (long-styled flowers), stigmas filiform. Fruit drupaceous, white at maturity, glabrous, surrounded by the slightly accrescent, persistent, cup-shaped calyx, ovoid, 13.5–14.2 × 7.8–8.2 mm, exocarp glabrous, mesocarp mucilaginous, stone erect, ellipsoid.

Distribution and habitat. *Cordia pilosa* is known only from Alagoas, Bahia, and Sergipe in Brazil, where it occurs in the Atlantic coastal forest, specifically in restinga vegetation (sandy plains along the coast), below 100 m in elevation. It is apparently endemic to northern Brazil.

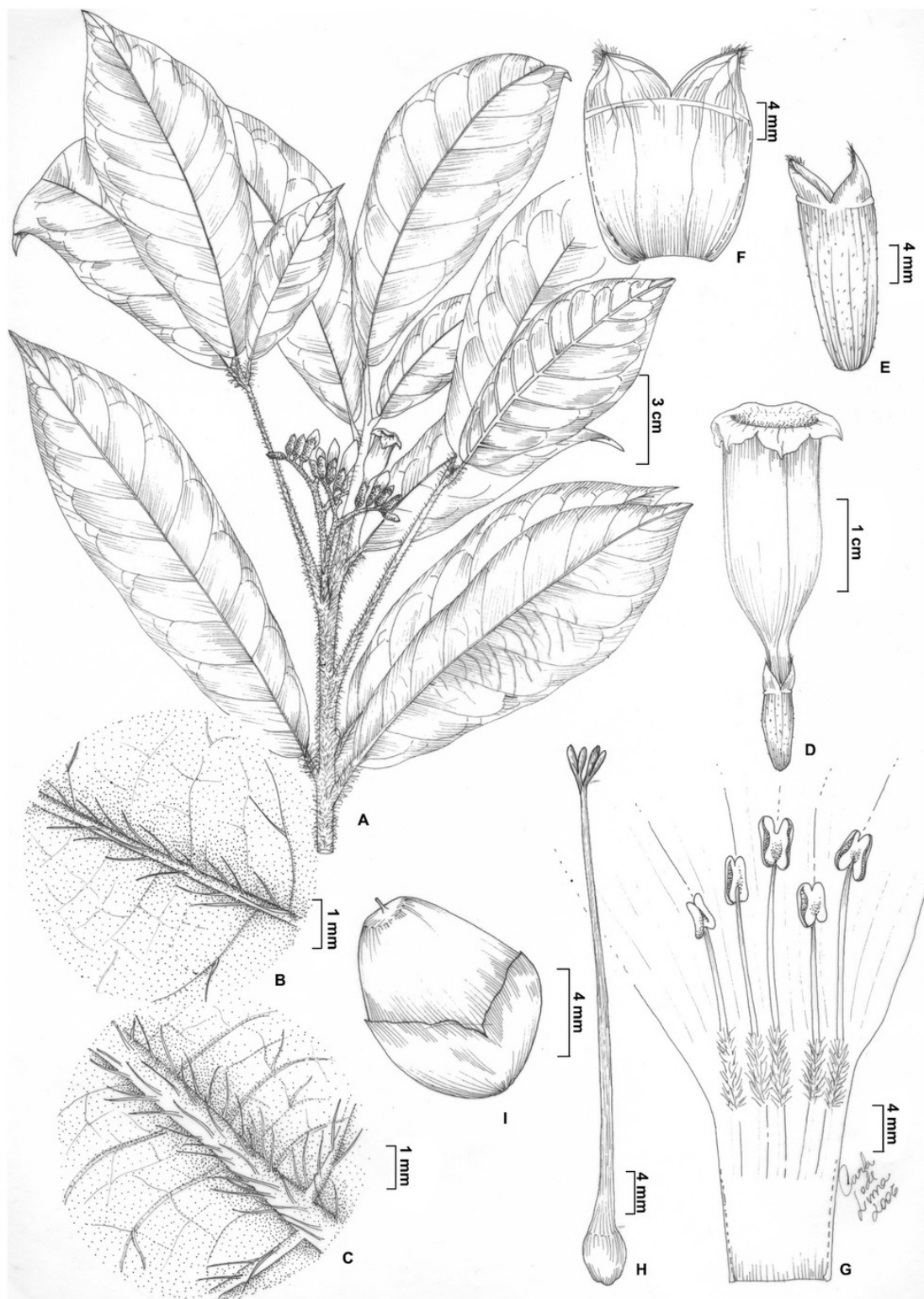


Figure 1. *Cordia pilosa* M. Stapf & Taroda. —A. Flowering branch. —B. Adaxial surface of leaf midportion. —C. Abaxial surface of leaf midportion. —D. Flower. —E. Calyx. —F. Calyx opened. —G. Corolla opened to show the insertion of the stamens. —H. Gynoecium. —I. Fruit. A–H drawn from the type *M. Stapf* 228 (HUEFS); I drawn from *M. Stapf* 229 (HUEFS).

IUCN Red List category. The species should be considered Data Deficient (DD) according to IUCN Red List criteria (IUCN, 2001). Although it is known from several localities in the altered Atlantic coastal forest region, more information about the numbers of individuals and the extent of the habitat is needed.

Phenology. Flowering specimens were collected in October to March; fruits were collected in January to April.

Relationships. The new species is distinctive and easily distinguished from other species in *Cordia* sect.

Superbiflorae by the pilose indument on the twigs, leaves, and inflorescences axes and by the reflexed corolla lobes. *Cordia pilosa* is closely related to *C. superba* Cham. and *C. rufescens* A. DC., sharing the large flowers (greater than 3 cm long). However, *C. superba* differs from *C. pilosa* by its indument that is scabrous with strigose hairs or often glabrescent, but never pilose, and by the spreading corolla lobes; *C. rufescens* can be distinguished from *C. pilosa* by its villous indument and smaller corolla (3.0–3.5 cm). *Cordia pilosa* appears to be distylous, as reported in other species of *Cordia* (Taroda & Gibbs, 1986).

Paratypes. BRAZIL. **Alagoas:** Limoeiro de Anadia, 11 June 1981, A. D. Andrade-Lima, R. Pereira & A. Du Bocage 75 (HUEFS); Barra de São Miguel, 25 Mar. 1986, R. P. Lyra-Lemos & G. L. Esteves 1190 (HUEFS, MAC); Penedo, 14 Nov. 1985, R. P. Lyra-Lemos & A. T. L. Pinheiro 1103 (HUEFS, MAC); Coruripe, Colônia de Pindorama, 21 Oct. 1998, R. P. Lyra-Lemos & M. N. Rodrigues 3979 (HUEFS, MAC); Piaçabuçu, Tapera, 22 Oct. 1987, I. S. Moreira, G. L. Esteves, R. P. Lyra-Lemos, R. S. Nascimento & A. F. L. Pinheiro 59 (HUEFS, MAC); Campo Alegre, Faz. Matão, 25 Nov. 1997, M. N. Rodrigues, R. P. Lyra-Lemos & J. Santinho 1174 (HUEFS, MAC). **Bahia:** Entre Rios, 11°53'08"S, 37°57'13"W, 25 Feb. 2005, J. G. Carvalho-Sobrinho & A. C. Assunção 347 (HUEFS); São Sebastião do Pessé, Faz. Panema 12°33'S, 38°23'W, 27 Mar. 2001, G. Carvalho *et al.* 21 (ALCB); Conde, 30 km from Conde, 25 Mar. 1995, F. França & E. Melo 1145 (HUEFS); Itanagra, Faz. Brejo Verde, 26 Oct. 1975, E. F. Gusmão 375 (ALCB); Conceição do Jacuípe, Rio Pojuca, 12°32'S, 39°05'W, 7 Mar. 2003, M. V. Moraes 575 (HUEFS); Entre Rios, rd. to Imbé, 12°7'40"S, 37°59'14"W, 20 Jan. 2007, T. S. Nunes, N. K. R. Souza & K. T. R. Souza 1767 (HUEFS); Mata de São João, praia Malhada, 12°30'37"S, 38°00'36"W, 18 Nov. 2005, A. K. A. Santos, S. F. Conceição & T. S. Nunes 468 (HUEFS); Entre Rios, rd. Conde-Esplanada, 11°45'17"S, 37°45'45"W, 23 Jan. 2004, M. Stapf 201 (HUEFS, SJRP), M. Stapf 202

(HUEFS), M. Stapf 203 (HUEFS), M. Stapf 204 (HUEFS), 3 Feb. 2004, M. & D. Stapf 229 (HUEFS, SJRP). **Sergipe:** Indiaroba, rd. to Pontal, ca. 1 km from hwy. SE 100, 11°28'57"S, 37°27'37"W, 19 Aug. 2003, K. R. B. Leite & A. S. Conceição 337 (HUEFS).

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