

Notes on *Cnidoscolus*  
(*Euphorbiaceæ*), 32

Francisco Javier FERNÁNDEZ CASAS

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## Notes on *Cnidoscolus* (*Euphorbiaceæ*), 32

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FERNÁNDEZ CASAS, F. J. (13-i-2007). Notes on *Cnidoscolus* (*Euphorbiaceæ*), 32. *Fontqueria* 55(47): 373-380 [offprint page numbering: 1-8].

**Keywords.** Systematics, new species, *Cnidoscolus* (*Euphorbiaceæ*), Brazil (Bahia).

**Abstract.** A new Brazilian species of the genus *Cnidoscolus* (*Euphorbiaceæ*) from Bahia state is proposed in this paper: *C. populifolius*, from Bahia state.

**Zusammenfassung.** Es wird hier eine neue Art der Gattung *Cnidoscolus* (*Euphorbiaceæ*) beschrieben: *C. populifolius*, aus Bahia.

**Resumé.** Une nouvelle espèce est décrite du Brésil dans le genre *Cnidoscolus* (*Euphorbiaceæ*): *C. populifolius*, de Bahia.

**Resumo.** Descreve-se uma nova espécie brasileira no gênero *Cnidoscolus* (*Euphorbiaceæ*): *C. populifolius*, do estado de Bahia.

**Resumen.** Se describe como nueva una especie brasileña del género *Cnidoscolus* (*Euphorbiaceæ*): *C. populifolius*, del estado de Bahia.

We continue our series of publications on the genus *Cnidoscolus* Pohl (*Euphorbiaceæ*, *Crotonoideæ*, *Manihoteæ*), published in this journal; see from the first paper in the series, F. J. FERNÁNDEZ CASAS (2001) to that preceding this one, F. J. FERNÁNDEZ CASAS (2006).

A new species of the genus *Cnidoscolus* Pohl is described. It was discovered during the recent study (ii-2006) of the collections of the ALCB (Salvador, Bahia) and HUEFS (Feira de Santana, Bahia) herbaria. I would like to express my gratitude to the curators of both herbaria for so kindly making them available to me.

32 ***Cnidoscolus populifolius*** Fernández Casas, **spec. nov.**, *Fontqueria* 55(47): 373-380, n° 32 (13-i-2007)

TYPUS: A. A. Oliveira, L. Paganucci de Queiroz 6115, L. Rios, C. C. dos Santos & D. Carneiro Torres, 17-II-2000 (ALCB 47316; HUEFS 43867, holo-)

– Sect. *Vitifoliae* Pax, Pflanzenreich IV, 147: 86, n° III.1 (1910); (Pax) Pax & K. Hoffmann, Natürl. Pflanzenfam., ed. 2, 19c: 164, n° I (1931); em. McVaugh, Bull. Torrey Bot. Club 71(5): 471, n° 5 (1944), subsect. iii.1.b *Brasiliensis* Pax (1910); (Pax) Pax & K. Hoffmann, In A. Engler (ed.) Natürl. Pflanzenfam., ed. 2, 19c: 164, n° 202.I (1931)

DISTR. GEOGR. **America australis:** Brasil (Bahia); cf. tabula 1 (pag. 374).

ILLUSTR.: Laminæ nostræ i (pag. 375), ii (pag. 376), iii (pag. 377).

**ABBREVIATA DIAGNOSIS** vel character essentialis

Foliis glaberrimis, integris, cordatis, marginibus antrorse setosis. Inflorescentiis perbrevis, glaberrimis; perianthio crasso, coriaceo cerino. Ovario glaberrimo; stylopodio longo; stigmatibus digitatis, complanatis.

**MAIN DIAGNOSTIC FEATURES** or diagnostic characters

Leaves completely glabrous, entire, cordate, with marginal upwards directed urticant



bristles. Completely glabrous, very short inflorescence; thick perianth, leathery and waxy. Completely glabrous ovary; long stylopod; digitate flattened stigmas.

#### LATINA DESCRIPTIO

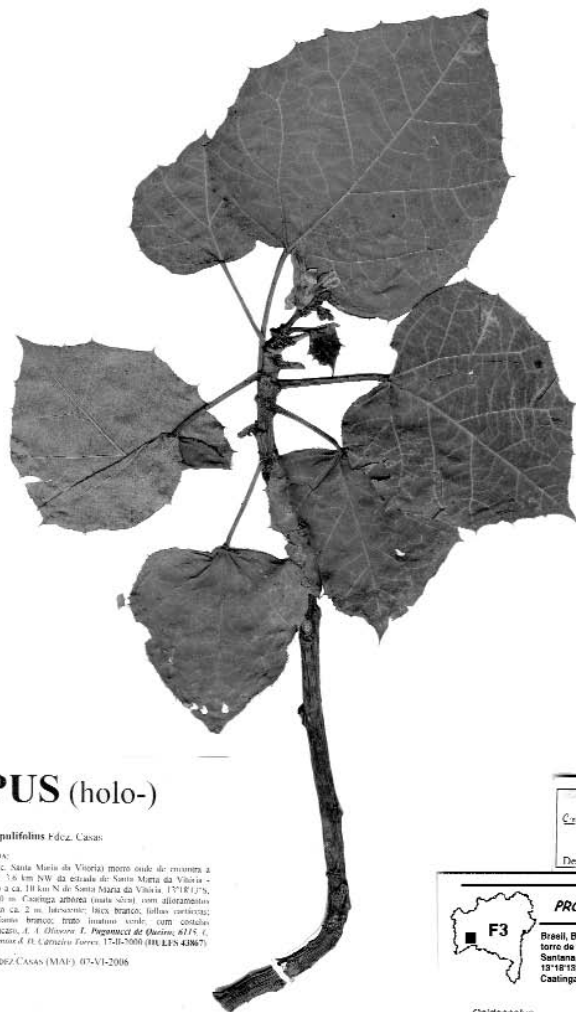
Sicut collectorum schedula frutex 2 m, lacticiferus; latex albus; folia chartacea; flores albi; regma longistrorsum albo costatum.

*Cortex* badius, vix cicatricosus, in sicco rugæ longitudinales exhibet, in vivo crassus fuit?

INDUMENTUM. *Pili* destituti. *Setæ urticantes magnæ* destitutæ. *Setæ urticantes mediæ* pauca, 2-3 mm longæ, secus margines foliarum inventæ; secus petiolos rarissimæ. *Basis* nitida, fusca, marginales supra eminentiam viridem, herbaceam; *globulus* terminalis facile visibilis.

FOLIA setis urticantibus marginalis exceptis ubique glabra. *Stipulæ* lunulatæ vel semi-circulares, profunde multidigitatæ, iuniores virides. *Petiolus* 3-4,5 cm × 1-2 mm, subcylindricus, glabrus, rarissime stimulosus. *Glandulæ summipetiolares* parum notatæ; eas

**HUEFS**  
**43867**  
FEIRA DE SANTANA  
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**TYPUS (holo-)**

*Cnidoscolus populifolius* Fdez. Casas

**BRASIL**. (05) Bahia:  
**TYPUS**. - caatinga, Santa Maria da Vitória morro onde se encontra a zona de telômetro: 3,6 km SW da estrada de Santa Maria da Vitória - Santana, entrando a ca. 10 km N de Santa Maria da Vitória. 13°18'12"S, 047°18'55"W. 600 m. Caatinga arbórea (mata seca), com arborização calcárea. Arbusto ca. 2 m. Inflorescência branca; folhas coriáceas; línx castanho branco; fruto imaturo verde; com costelas longitudinais brancas. *F. J. Fernández Casas, L. Paganucci de Queiroz, 6115 & al. Rio de Janeiro, 17 de Junho de 2000 (HUEFS 43867).*

Rev. F. J. FERNÁNDEZ CASAS (MAM) 07-VI-2008

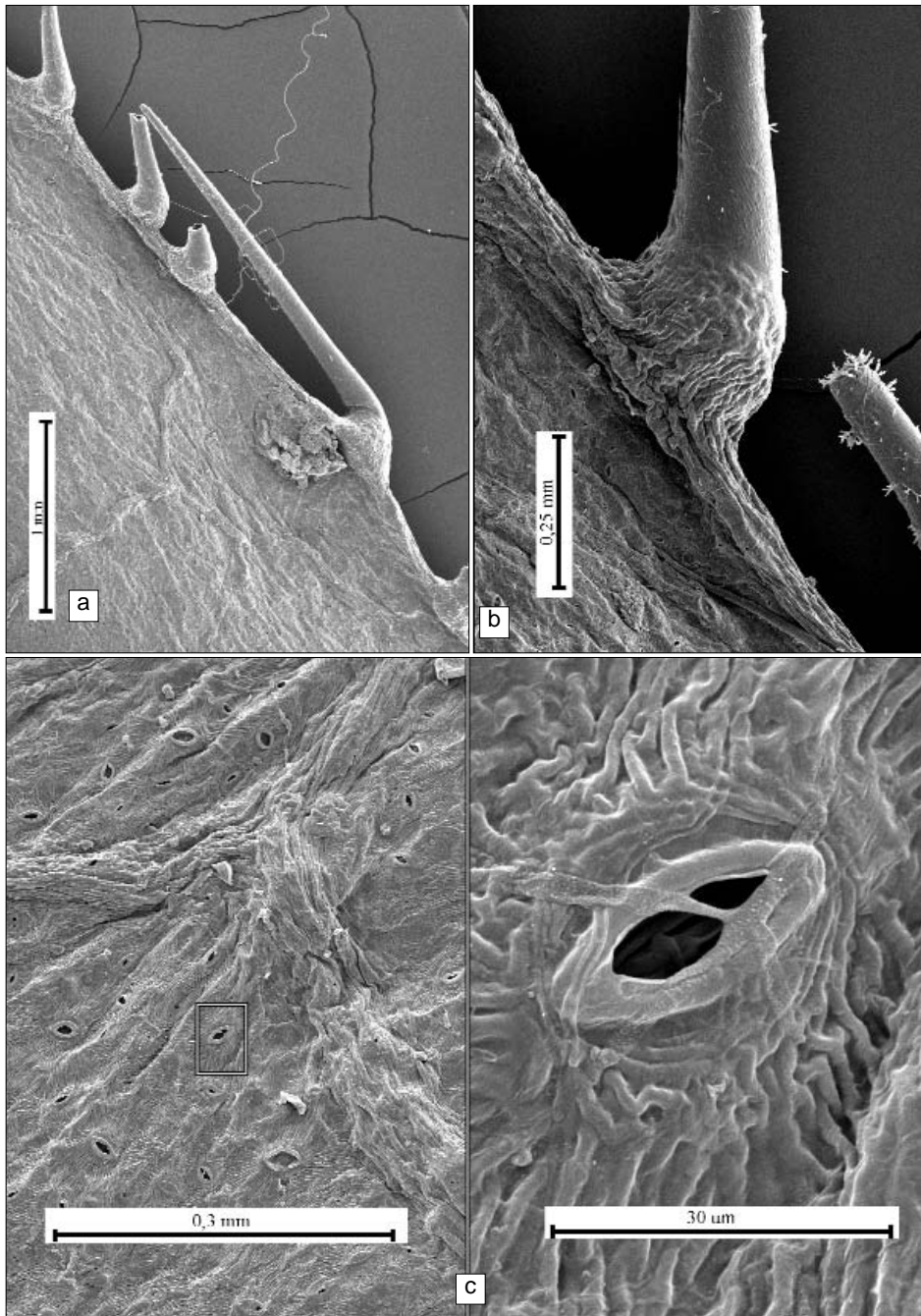
Instituto de Universidade Estadual de Feira de Santana  
*Cnidoscolus populifolius* (L.) Fdez. C. & Hoffm.  
Det. G. C. Nogueira 7/2003

|                  |  |                                  |
|------------------|--|----------------------------------|
| <p><b>F3</b></p> | <p><b>PROJETO FLORA DA BAHIA</b></p>   | <p>HUEFS nº<br/><b>43867</b></p> |
|                  | <p>Bahia, Bahia, Santa Maria da Vitória: morro onde se encontra a torre de telômetro, ca. 3,6 km NE de estrada Santa Maria da Vitória - Santana, entrando a ca. 10 km N de Santa Maria da Vitória. 13°18'12"S 47°18'55"W. Caatinga arbórea (mata seca) com afloramentos calcáreos. Alt.: 600</p> |                                  |

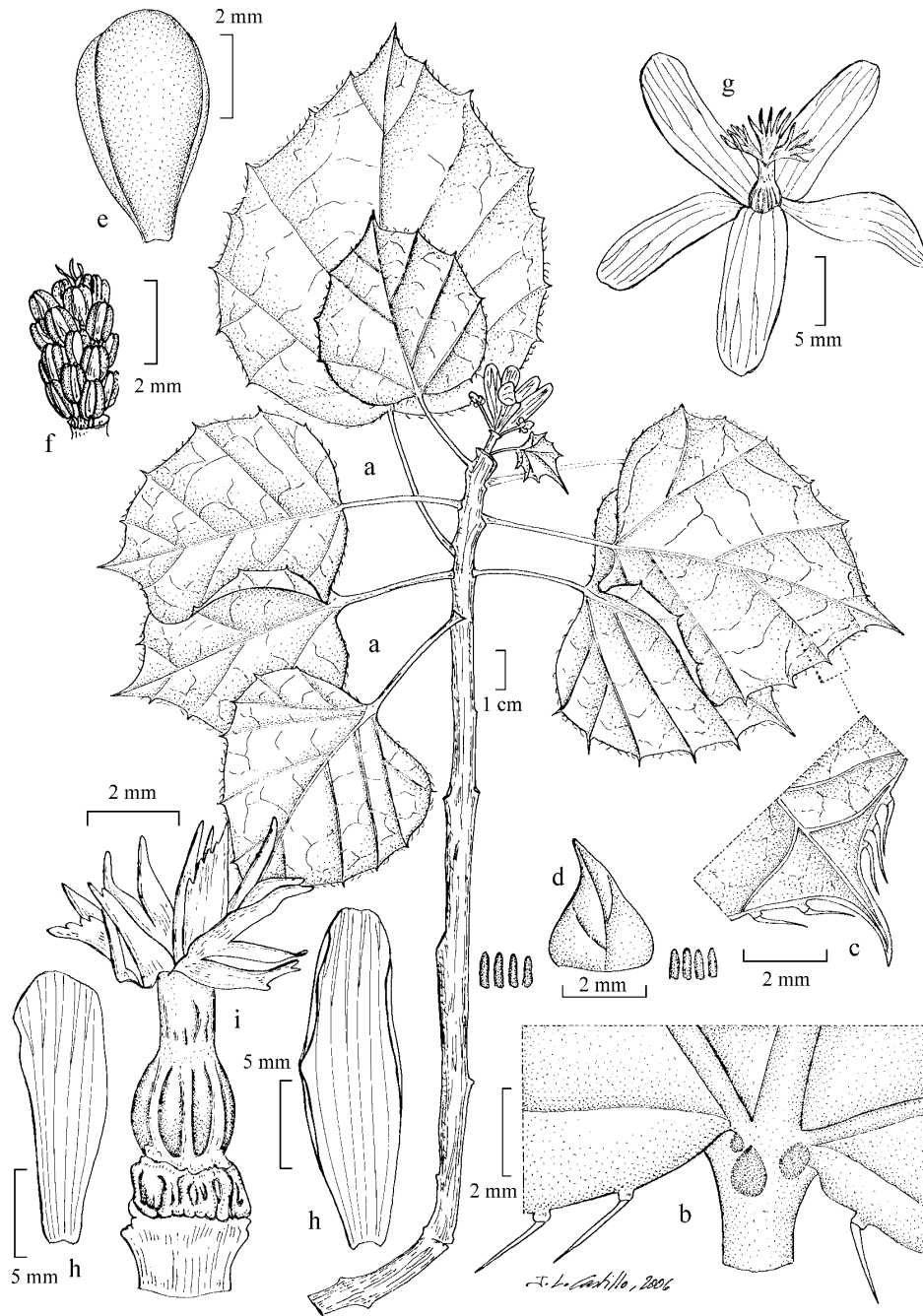
*Cnidoscolus*  
EUPHORBIACEAE  
Arbusto de ca. 2 m alt., tomentoso, línx branco. Folhas coriáceas. Flores com perianário branco. Frutos imaturos verdes com costelas longitudinais brancas.

Queiroz, L.P. de 6115. U.C. Torres, A.A. Oliveira, G. C. dos Santos & I. Flors. 17/2/2000  
Det.

**Plate I.** *Cnidoscolus populifolius* Fernández Casas. *L. Paganucci de Queiroz 6115 & al.* (HUEFS 43867). The holotype voucher.



**Plate II.** *Cnidocolus populifolius* Fernández Casas. *L. Paganucci de Queiroz 6115 & al.* (HUEFS 43867, holotype). a, b) Leaf margin with antrorse urticating bristles (broken, affected by fungi). c) Leaf underside with two nerves and enlarged stoma (right).



**Plate III.** *Cnidoscolus populifolius* Fernández Casas. *L. Paganucci de Queiroz 6115* (HUEFS 43867, holotype). a) Fertile branch. b) Summipetiole glands. c) Leaf teeth. d) Hypsophyll. e) Male flower bud. f) Androecium. g) Female flower. h) Female petals. i) Gynoeceium.

foliorum iuniorum duæ massulæ præminentes (saltem cum 1-3 minores), plus minusve conicæ, castanneo rubris, uvidæ, nitidæ; eas foliorum vetustorum duæ foveæ reductæ, interdum 1-3 foveæ minores adjacentes. *Limbus* late ovatus, cordatus, acutus, chartaceus, nullimodo pedatus. *Nervia radialia* principalia tria, dua extima minora; quam limbus lætius; supra plana; subtus bene notata. *Nervia secundaria* 45° pronis. *Nervia terciaria* et *quaternaria* reticulum atque subreticulum desinentes. *Margo* dense ciliatus, setis urticantibus antrorse dispositis, dentatus; *dentibus* raris, distantis, acutis, ad 1 × 0,3 mm, nervia craspedodroma margines escurrentia formantes; extremitate habito glanduloso, uvido.

INFLORESCENTIA (unica tantum visa) pauciflora, terminalis, ubique glaberrima, estimulosa, ad 2 cm, folias non superantes. *Bracteæ* ad 1,5 × 2,5 mm, glaberrimæ, triangulares, acutæ, interdum bicuspidatæ, ad basim amplexantes, in unoquoque latere 3-5 glandulæ basales præditæ. *Bracteolæ* bracteæ similes sed minores, ad basim digitato glandulosæ; *glandulæ* digitiformes, translucidæ.

FLORES MASCULI ubique glabris. *Alabastra* tantum visa. *Pedunculus* nullus, id est flores sessili. *Corolla* ubique glaberrima, in sicco grisea, cerino vel coriaceo aspectu; parietes tubi percrassi. *Petala* (partes liberæ) oblongo ovalia, cochleariformia, ad basim se invicem tegentia; præflorationis quinquencialis. *Discus* sessilis, ut videtur glabrus. *Columna staminalis* ut videtur ubique glabra. *Stamina* ad 20, quattuor verticillata. *Filamenta* brevia. *Antheræ* 0,7 × 1,3 mm. *Staminodia* tria, subulata, inter antheras supremas parum exstantia.

FLORES FEMINEI (unus tantum visus). *Pedunculus* subnullus. *Calyptra* minima, 2-3 mm, glaberrima, parum rugæ longitudinalis prædita, callus marginales inconspicuo. *Petala* linearia, ad 13-15 × 4 mm, in sicco castanea albido marginata, utrinque glaberrima, obtusa. *Discus* annularis, 1 × 2,5 mm, glaberrimus, glandulæ quinque adjacentes sed distinctæ unaquæque striæ duæ verticales præditæ; *discopodium* brevissimum sed nitidus, ad 0,25 mm. *Staminodia* duodecim, vestigialia, subcelata, ad 0,3 mm, conica acuta. *Ovarium* ad basim, supra discum, transverse plicatum. *Stylopodium* columnare, cylindricum, ca. 1,5 mm. *Styli* tres, perbrevis, ad 0,5 mm, parum divergenti, extus fere cylindrici, intus late canaliculati. *Stigmata* digitata, complanata, stricte triangularia, acuta, usque 3 mm longa.

REGMA nobis ignotum est.

#### REGARDING THE ETYMOLOGY AND ORTHOEPY of the specific name

The Latin adjective *populifolius*, *-a*, *-um*, is made from the generic name of poplar, *Populus* (*salicaceæ*) –in Spanish: álamo, chopo or pobo– and the noun *folium*, *-i*, meaning leaf (with a neuter gender); its leaves recall those the poplar. The name is stressed on the penultimate syllable (paroxytone): populifolius.

#### ENGLISH DESCRIPTION

According to the the collector's label, shrub up 2 m, white latex; chartaceous leaves; white flowers; regma with longitudinal white ribs.

*Bark* reddish brown, partially covered with scars, shows longitudinal wrinkles when dry, perhaps thick when fresh?

INDUMENT. Entirely lacking in hairs. *Large urticating bristles* completely absent. *Middle urticating bristles* scarce, 2-3 mm long, distributed along the leaf margins; very rare along the petioles. *Base of urticating bristle* shiny, dark; marginal bristles are borne on a green herbaceous projection; the small end sphere is easily visible.

LEAVES without any hair except for the marginal urticant bristles. *Stipules* crescent-



shaped or semicircular, deep multi-digitate, the younger ones greenish. *Petioles* 3-4,5 cm  $\times$  1-2 mm, almost cylindrical, glabrous, very sparsely urticant. *Summipetiolar glands* barely visible; in young leaves consisting of two prominent masses (sometimes with another 1-3 smaller ones), more or less conical, chesnut-red in colour, with wet appearance, shiny; reduced to two pits in old leaves, sometimes with 1-3 adjoining smaller pits. *Lamina* broadly ovate, cordate, acute, chataceous, not pedate at all (i.e., no part of the radial nerve runs along the margin). *Main radial nerves* three, to which are added two more external but less consistent ones, being brighter than the rest of the lamina; flat on the upper side; projecting beneath. *Secondary nerves* leaning forward at 45°. *Tertiary nerves* reticulate, *quaternary nerves* subreticulate. *Margin* densely ciliate with upwardly directed urticating bristles, dentate; *teeth* separated, acute, ad 1  $\times$  0,3 mm, formed by the excurrent craspedodromous nerve ending with a glandule of moist appearance.

**INFLORESCENCE** (only one seen) few-flowered, terminal, completely glabrous, without urticant bristles, ca. 2 cm, shorter than the leaves. *Bracts* ca. 1,5  $\times$  2,5 mm, completely glabrous, triangular, acute, sometimes ending in two sharp points, stem-clasping at base and with 3-5 basal glands on each side. *Bracteoles* like bracts but smaller, glandulose digitate towards base; *glands* finger-like, clear.

**MALE FLOWERS** glabrous everywhere. We have only seen flower buds. *Peduncle* absent, or sessile flowers. *Corolla* completely glabrous, grey when dried, with waxy or leathery appearance; tube wall very thick. *Petals* (their free part) oblong ovate, spoon-shaped, self imbricate towards base; aestivation quincuncial. *Disc* sessile, apparently glabrous. *Staminal column* glabrous everywhere. *Stamens* ca. 20, four-verticillate. *Filaments* short. *Anthers* 0,7  $\times$  1,3 mm. *Staminodes* three, awn-shaped, standing out among the upper anthers.

**FEMALE FLOWERS** (only one seen). *Peduncle* almost lacking. *Calyptra* very small, 2-3 mm, completely glabrous, with several longitudinal scars, margin slightly callose. *Petals* linear, ca. 13-15  $\times$  4 mm, when dry with all margins chesnut with in colour, completely glabrous in both surfaces, obtuse. *Disc* ring-shaped, 1  $\times$  2,5 mm, completely glabrous, formed by five contiguous and separated glands, each gland with two fine vertical streaks; *discopode* very short but well defined, approximately 0,25 mm. *Staminodes* 12, vestigial, almost concealed, conical, acute. *Ovary* near base transverse plicate. *Stylopode* columnar, cylindrical, approximately 1,5 mm. *Styles* three, very short, approximately 0,5 mm, not very divergent, almost cylindrical on the outside, broadly canaliculate on the inside. *Stigmas* digitate, flattened, narrow triangular, acute, up to 3 mm long.

**REGMA** not known (but see the transcription of collectors' label).

#### OBSERVATIONS

The new species is included in the section *Vitifoliae* Pax (1910), subsect. *Brasiliensis* Pax (1910); see the complete nomenclature on page 373, and more reliable information in F. J. FERNÁNDEZ CASAS (2005: 255s, n° 23).

All the species of the subsection *Brasiliensis* Pax are endemic to Brazil. Four species (*C. calcareus*, *C. Magni-Gerdii*, *C. mitis* and *C. populifolus*) are found in only one state; one species (*C. Ulei*) is found in two states, another one (*C. Sellowianus*) in three states, and the last one (*C. bahianus*) is broadly distributed in W Brazil, being known from ten states.

With this new species, the number of species in the subsection *Brasiliensis* reaches seven. The all can be distinguished with the following dichotomous key. The number

preceding some species indicates the ordinal number in our series of publications.

CLAVIS SPECIERUM BRASILIENSIS SUBSECTIONIS *BRASILIENSIS* Pax (7 spp.)

- 1a Rami ramulique aculeati ..... 2  
 1b Rami ramulique inermes, inaculeati (nonnumquam cicatricibus foliorum delapsorum exasperati). Folia leviter palmatiloba ..... 4  
 2a Aculei minimi. Setæ urticantes magnæ destitutæ, minimæ ad 1 mm. Folia glabra atque pæne estimulosa. Alabastra mascula glaberrima. (Bahia) ..... 18. *C. Magni-Gerdtii*  
 2b Aculei maiores. Setæ urticantes magnæ, ad 1 cm. Folia pubescentia, saltim abaxialiter plus minusve stimulosa. Alabastra mascula dense tomentoso pubescentia ..... 3  
 3a Folia præsertim subtus dense villosa pubescentia. Inflorescentiæ breviter pedunculatæ, quam folias multo minores. (Bahia, Goiás, Maranhão, Minas Gerais, Pará, Paraíba, Pernambuco, Piauí, Rio de Janeiro, Tocantins) ..... *C. bahianus*  
 3b Folia adulta utrinque pubescentia, firme chartacea, subtus canescentia. Inflorescentiæ longe pedunculatæ, folias subæquantes. (Bahia, Goiás) ..... *C. Ulei*  
 4a Partes maturæ ubique glabrescentes. Alabastra mascula fere glabra vel glaberrima. Androceum tri- vel quattuor-verticillatum ..... 5  
 4b Partes maturæ ubique hirto villosæ. Alabastra mascula dense incano tomentosa. Androceum tri-verticillatum. (Mato Grosso) ..... 23. *C. mitis*  
 5a Folia illas *Populi* similis, marginibus antrorse setosis; stylopodio longo; stigmata digitato complanata. (Bahia) ..... 32. *C. populifolius*  
 5b Folia aliter; stigmata non complanata ..... 6  
 6a Petioli longitudo laminam subæquanti. Alabastra mascula fere glabra. Androceum quattuor-verticillatum. (Mato Grosso do Sul) ..... 17. *C. calcareus*  
 6b Petioli longitudo laminam dimidiam subæquanti. Foliorum lamina margine leviter acute denticulata. Alabastra mascula velutina. Androceum tri-verticillatum. (Bahia, Goiás, Minas Gerais) ..... *C. Sellowianus*

EXAMINED SPECIMENS

BRASIL, (05) BAHIA:

- 23LNF92** -13.34°, -044.12°; «(munic. Santa Maria da Vitória) morro onde de encontra a torre de telefone, 3,6 km NW da estrada de Santa Maria da Vitória - Santana, entrando a ca. 10 km N de Santa Maria da Vitória, 13°18'13"S, 044°06'55"W, 600 m. Caatinga arbórea (mata sêca), com afloramentos calcáreos. Arbusto ca. 2 m, latescente; látex branco; folhas cartáceas; flôres com perianto branco; fruto imaturo verde, com costelas longitudinais brancas», A. A. Oliveira, L. Paganucci de Queiroz 6115, L. Rios, C. C. dos Santos & D. Carneiro Torres, 17-II-2000 (ALCB 47316; HUEFS 43867, holo-; type *C. populifolius*).

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Miguel Jerez Luna took the electronic microphotographs for plate ii (page 376). Ulpiano Emilio Souto Mandelos processed the digital photograph for plate i (page 375); he also made the distributional map (page 374). Juan Castillo Gorroño drew the plate iii (page 377).

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