

Notes on *Cnidoscolus*
(*Euphorbiace *), 25-26

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Notes on *Cnidoscolus* (*Euphorbiaceæ*), 25-26

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Keywords. Systematics, New species, *Cnidoscolus* (*Euphorbiaceæ*), Guatemala (Petén).

Abstract. A new species is proposed under *Cnidoscolus* (*Euphorbiaceæ*): *C. guatimalensis*, from Guatemala (Petén).

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

Resumé. Une nouvelle espèce est décrite dans le genre *Cnidoscolus* (*Euphorbiaceæ*): *C. guatimalensis*, de Guatemala (Petén).

Resumo. Descreve-se uma nova espécie no gênero *Cnidoscolus* (*Euphorbiaceæ*): *C. guatimalensis*, de Guatemala (Petén).

Resumen. Se describe una especie nueva de *Cnidoscolus* (*Euphorbiaceæ*): *C. guatimalensis*, de Guatemala (Petén).

We continue our series of publications about the genus *Cnidoscolus* Pohl (*Euphorbiaceæ*, *Crotonoideæ*, *Manihoteæ*), published in this same magazine, cf. the previous paper, F. J. FERNÁNDEZ CASAS (2005).

A new species is described in the genus *Cnidoscolus* Pohl. It was discovered during the recent study (2006) of the collections of the herbarium W (Vienna) which were kindly placed at my disposal. These words serve as a recognition of my gratitude.

Cnidoscolus guatimalensis, which is the novelty, are classified under the section *Jussieuia* (Houston) Pax for all their morphologic characteristics, save that of their sum-mipetioilar glands that are very special or which they lack completely, depending on the interpretation of what can be seen there.

Our description is made approximately following along the lines of that which has become classic in the genus, G. J. BRECKON (1975); and for the infrageneric ordination we continue along the classic line of F. A. PAX & K. HOFFMANN] (1910).

25 REGARDING THE FIRST PARAGRAPH in our description

In our most recent papers and with increasing frequency, we have incorporate to our descriptions an initial paragraph where the extracted information of the labels is transcribed. We have not always done it in this way, however, each time we have found it more necessary to separate that information, which comes from another author and from a different origin; frequently it comes from the observation of live populations and not from the study of dry samples in herbarium. In spite of the fact that it sometimes contains information contradictory with our studies, we find an advantageous practice, as much to keep it in mind, as to have it separated in paragraph.

Habitually, that information only takes into account data based on habit, size, ramification, color of the leaves or flowers, or of this nature; sometimes, however, it specifies other details. With great frequency it deals with characters that are not observable on the herbarium vouchers.

As consequence, the description sometimes seems contradictory. Sometimes it happens that there are data consigned for the fruit, obtained from the labels, at the time that

we write "*Regma nobis ignotum est*", or something of this nature which aims to convey the same message, in our description. Other contradictions like that of pointing out a maximum size that the samples of the sheets themselves surpass –which is not as uncommon as it might be expected a priori– we give them as not read and they are not taken into account when editing the descriptive paragraph.

26 ***Cnidoscolus guatemalensis*** Fern ndez Casas, **spec. nov.**, *Fontqueria* **55**(43): 330-336, n  26 (02-xii-2006)

TYPUS: *R. O. Frisch & H. Kurz 316*, II/III-1990 (W 1992-16949, holo-)

– Sectio *Jussieuia* (Houston) Pax, *Pflanzenreich* IV, 147: 94, n  iii.3 (1910); F. A. Pax & K. Hoffmann, *Nat. Pflanzenfam.*, ed. 2, 19c: 164 (1931)

DISTR. GEOGR. **America interistmica**: Guatemala (Pet n); cf. tabula 1 (pag. 336).

ILLUSTR.: *Laminae nostrae* i (pag. 332), ii (pag. 333), iii (pag. 334).

ABBREVIATA DIAGNOSIS vel character essentialis

Species e sectione *Jussieuia* (Houston) Pax, sed glandulis summipetiolaribus longe pedunculatis, aliquo modo simillima congeneribus *Cnidoscolus Souzae* McVaugh (1944).

MAIN DIAGNOSTIC FEATURES or diagnostic characters

A typical species of section *Jussieuia* (Houston) Pax, but summipetiolar glands long pedunculate, closely resembling those of *Cnidoscolus Souzae* McVaugh (1944).

LATINA DESCRIPTIO

INDUMENTUM. *Setae urticantes magnae* in summo petiolo, longe pedunculatae, saltem bifurcatae, rarissime trifurcatae exhibet.

FOLIA. *Stipulae* non observatae. *Petioli* usque 12-15 cm, limborum longitudinem subaequantur vel parum superantes; hirti atque ubique stimulosi; foliorum delapsorum vascularia vestigia 5(6-7). *Glandulae summipetiolares* peculiare si adsunt, inter petiolorum extremitatem et limborum basibus adjacentibus sistentes; glandulae 2-4 cylindraceae, columna herbacea atque hirtula, extremitate glandulosa, fuscior. *Limbus* trilobus, utrimque pilosus, praecipue secus nervia, parum discolor, abaxialiter laete virens; lobus medius ambitu. *Nervia* principalia tria, palmatim disposita (id est, radialia). *Margo* glandulis raris pedunculatis praeditus.

INFLORESCENTIAE laxae, flores distantes. *Axes* (vel petioli communis) modice hirtuli, praecipue infra nodos, sursum parum dilatati. *Bractae* herbaceae, virides, infimae usque 3 × 1 mm, sursum gradatim minores, praecipue adaxialiter parum pilosae, subobtusae vel acutatae.

FLORES MASCULI 8-11 mm, sessiles vel subsessiles, albidus, basi vix dilatati, aperti hypocraterimorphi. *Alabastra* cylindrico subclaviformia, in tertio apicali parum constricta. *Corolla* inferne obconica, ad faucem constricta, ad 5/8 connata, extus modice hirta pilosa, intus glaberrima; *tubus* turbinatus, decemnervatus. *Petala* apice rotundata, trinervata. *Discus* glandulosus; glandulae disci connatae. *Columna staminalis* ad basim vix pilosa excepta ubique glabra. *Stamina* decem, biverticillata; verticillus inferus subbasalis, superus apicalis. *Antherae* albidae, ad 2 × 1 mm, verticilli superioris subexsertae, eae verticilli inferioris insertae, omnes inclusae. *Staminodia* tria, longa, subulata, antheras exstantia.

FLORES FEMINEI nobis ignoti sunt, aliquas partes reliquas cum regmatibus juvenilibus vidimus. *Pedunculus* ad 1-2 mm, hirtus. *Discus* (infra regmata vidimus) sessilis, glaberrimus. *Staminodia* decem, saltem minus quam decem, minima, subulata, glaberrima, basi conica dilatata. *Petala* (dua delapsa et fracta tantum vidimus) sublinearia, ad basim fracta, ergo ad basim connata?; ad mediam longitudinem trinervata.

REGMATA adulta valde rare villosa simulque stimulosa, apice *stylopodio* persistenti coronata. *Calyptra* parum evoluta, ad maturitatem subplana, stellata, hirtulo villosa; *margin*e carthilagineo glaberrimo atque undulato.

REGARDING THE ETYMOLOGY AND ORTHOEPY of the specific name

The specific name is taken from the country where it was found, Guatemala, in the interisthmian America; *guatemalensis*, -e, it corresponds to their Latin gentility; is pronounced paroxytone, *guatimal nsis*.

ENGLISH DESCRIPTION

INDUMENTUM. There are some big *stinging bristles* with very special features, located on the adaxial face of petiole upper part, near the limb base. Some of these have the longest peduncle that we have ever observed; its peduncle is sometimes forked, or even double forked (divided twice and thus forming three branches in total). It seems that these special stinging bristles make the transition toward the neighboring summipetiole glands.

LEAVES. *Stipules* unknown to me. *Petioles* up to 12-15 cm long, almost equaling the limb length; hirsute and stinging all over; in the cortical scars produced by the fallen leaves, we can see 5(6-7) vascular traces. Very special *summipetiole gland*, if they are truly that, are born between the supreme part of the petiole and the lower edges adjacent to the limb; the glands, 2-4 in number, are column is cylindrical herbaceous, minute hirsute, the end is glandular, darker and more viscous. *Limb* trilobe, pilose on both pages, mainly along the nerves, somewhat discoloured, on the abaxial face their green colour is brighter; divided to almost half of their radius in three main lobes, each one oblong acuminate, and with two other outer lateral lobes that does not quite achieve a clear definition; and which produce a broad sickle shape externally attached to each contiguous lateral lobe; the medium lobe is oblong, slightly narrowed at its base. There are five main *radial main nerves*: three inner main and two secondary ones which are less marked and more external. The *margin* is not lacking limb in any part, that is to say, the limbs are not pedate, exactly in the base, it sometimes gives the impression that a narrow border of limb is surrounding the petiole apex completely, making the limb pedate and very asymmetrical; the margin have some distant, long and sharp teeth, which are continuation of some tertiary nerves that attack the margin in normal direction at their edges; among these are some which are long and fine, and other shorter ones, ending with a clavate gland, see the figure c on plate i.

INFLORESCENCES lax, with distant flowers. *Axis* moderately and minute hirsute, especially below the knots, slightly broadened upwards. *Bracts* herbaceous, green or whitish, the lowest up to 3 × 1 mm, the others gradually smaller as it is ascended; something pilose, more on the upper face, subobtusate or sharp.

MALE FLOWERS 8-11 mm, stalkless or apparently so, white, hardly widened at base; salver-shaped at flowering. *Flower buds* cylindrical subclaviform, lightly constricted below the apical third. *Corolla* tubular, constricted in the mouth, connate along 5/8 of their length, outside moderately pilose, inside quite glabrous; tube with ten nerves. *Petals* (the free parts of corolla) five, oblong, with rounded apex, tri-nerved and spreading at flowering, slightly spoon-like, somewhat unequally with each other, with quincuncial aestivatio. *Disc* glandular, ring-shaped; its glands are connate, completely surrounding the staminal column at their base. *Staminal column* quite glabrous except for a scarcely pilose area next to the base that coincides with the outburst of the filaments of the lower whorl; the pilosity also affects the base of the filaments. *Stamens* ten, with two whorls; the whorls are very remote, the lower whorl is almost basal, the upper

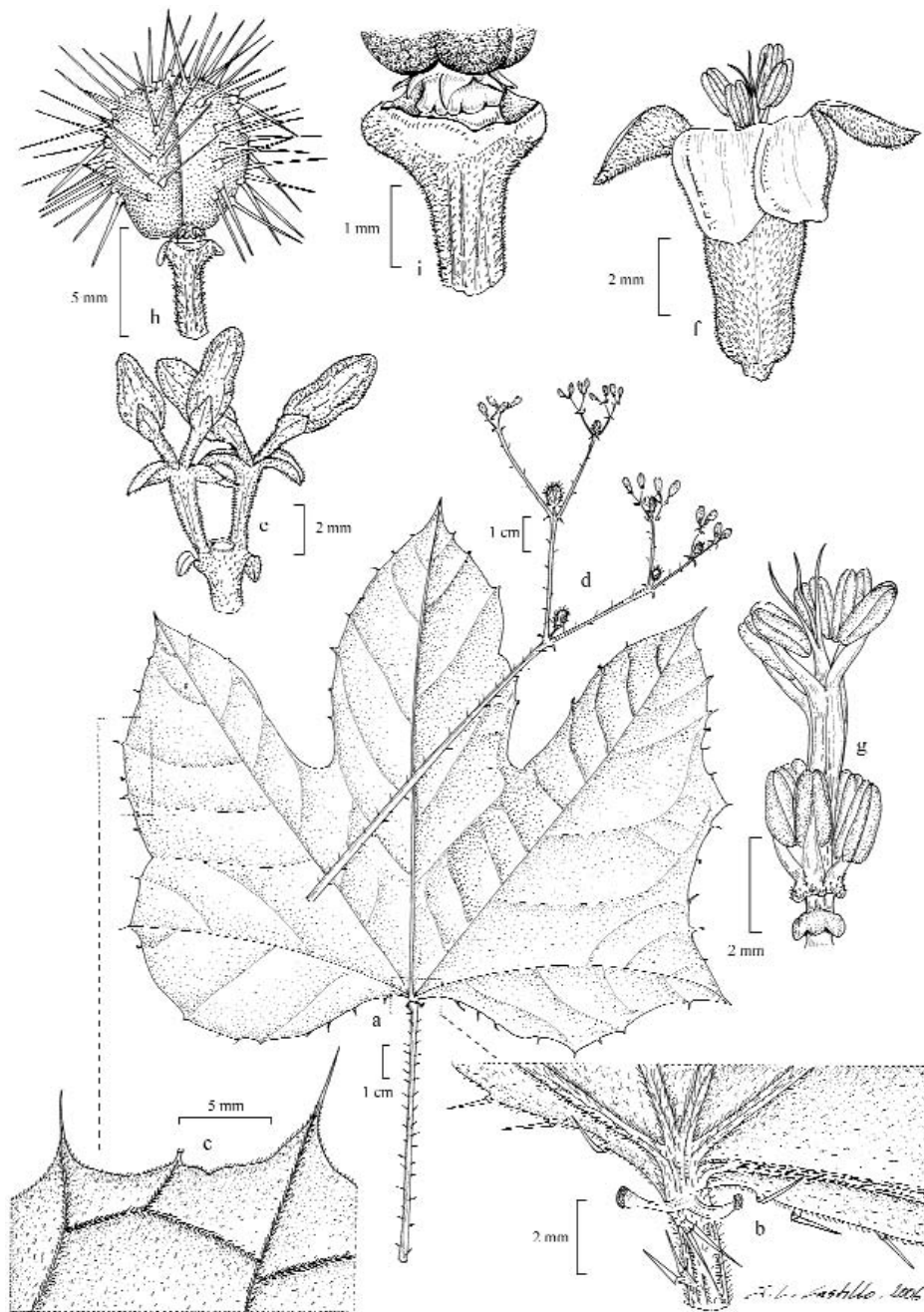
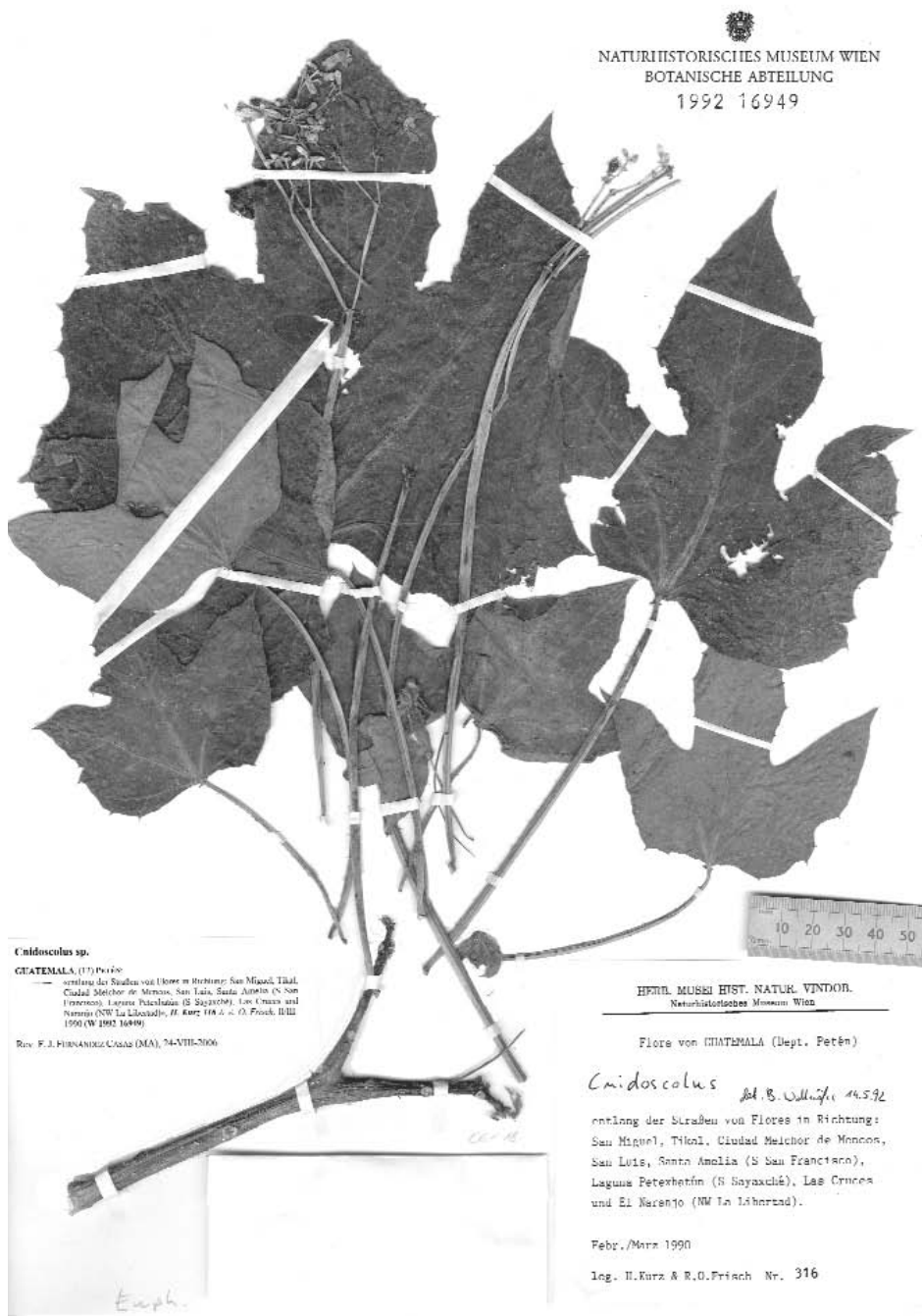


Plate I. *Cnidoscolus guatemalensis* Fernández Casas. *R. O. Frisch 316* (W 1992-16949, holotype).
 a) Leaf. b) Summitipetolar glands. c) Leaf margin, enlarged. d) Inflorescence. e) Male flower buds.
 f) Male adult flower. g) Androecium. h) Regma. i) Calyptra, disc and female estaminodes.



NATURHISTORISCHES MUSEUM WIEN
BOTANISCHE ABTEILUNG
1992 16949

Cnidocolus sp.
GUATEMALA (17) Petén:
entlang der Straßen von Uxmal in Richtung: San Miguel, Tikal,
Ciudad Melchor de Mancebo, San Luis, Santa Ana (N San
Francisco), Laguna Petenitán (E Sayaxché), Las Cruces und
Barroil (NW La Libertad); H. Kurz 1042, s. O. Frisch, BIII
1990 (W 1992 16949)

Rev. F. J. FERNÁNDEZ CASAS (DMA), 74-VIII-2006

HERB. MUSEI HIST. NATUR. VIENNAE
Naturhistorisches Museum Wien

Flora von GUATEMALA (Dept. Petén)

Cnidocolus det. B. Willinger, 4.5.92

entlang der Straßen von Flores in Richtung:
San Miguel, Tikal, Ciudad Melchor de Mancebo,
San Luis, Santa Ana (S San Francisco),
Laguna Petenitán (E Sayaxché), Las Cruces
und El Naranjo (NW La Libertad).

Febr./März 1990

leg. H. Kurz & R.O. Frisch Nr. 316

Plate II. *Cnidocolus guatemalensis* Fernández Casas. R. O. Frisch 316 (W 1992-16949, holotype). Holotype voucher.

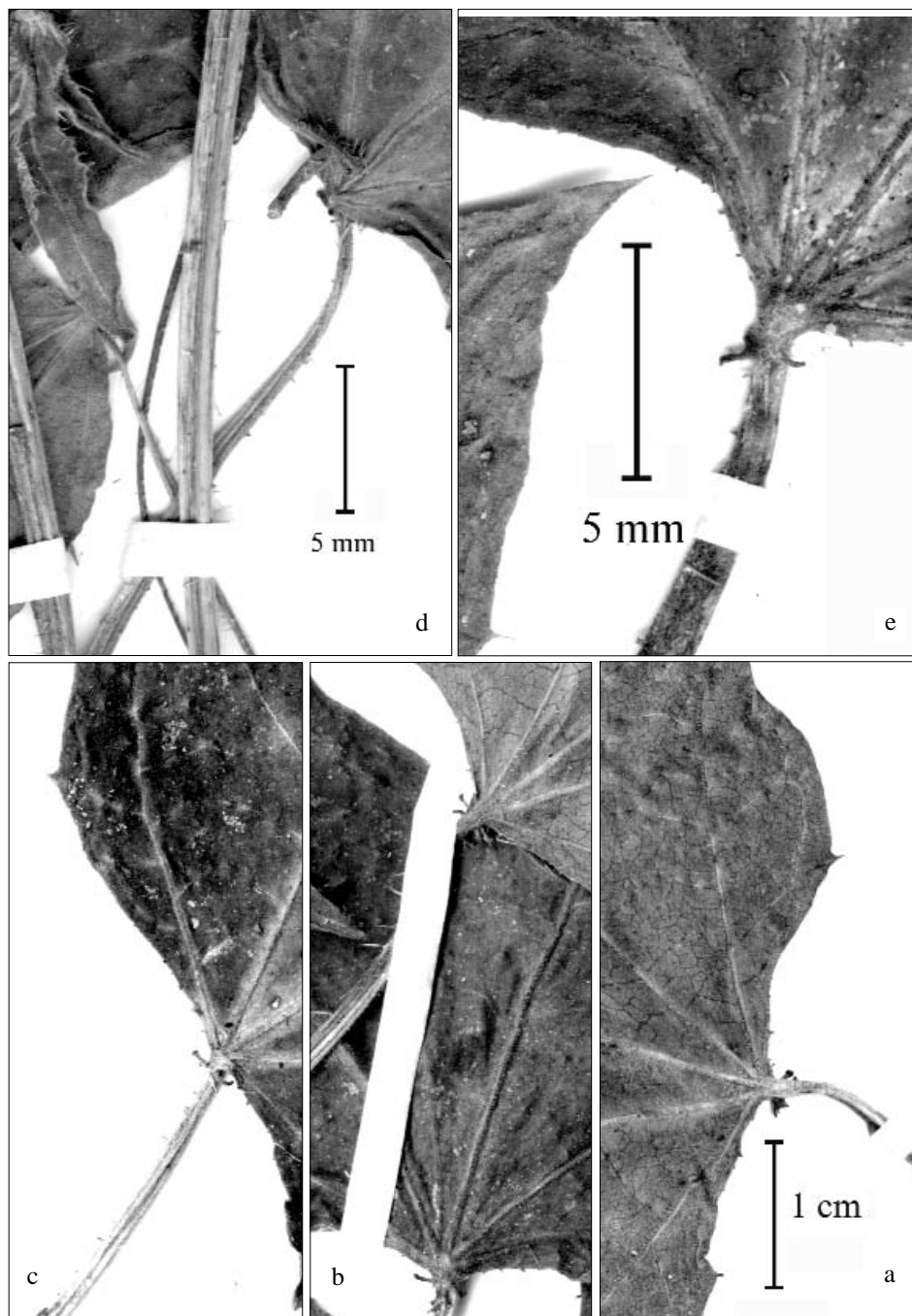


Plate III. *Cnidoscolus guatemalensis* Fern ndez Casas. *R. O. Frisch 316* (W 1992-16949, holotype). Summpetiolar glands. a, b, c) With the same graphic scale.

is apical. *Anthers* whitish, ca. 2×1 mm, those of the upper whorl almost excluded, those of the lower whorl enclosed, the all introrse. *Staminodes* three, long, subulate, 1.5-2 mm, they stand out among the supreme anthers.

Anthers whitish, ca. 2×1 mm, those of the upper whorl almost excluded, those of the lower whorl enclosed, the all introrse. *Staminodes* three, long, subulate, 1.5-2 mm, they stand out among the supreme anthers.

FEMALE FLOWERS unknown; our partial description which follows is made from the observation of the fragments which persist in the fruits. *Peduncle* hirsute, 1-2 mm. *Disk* (under the regma observed) sessile, quite glabrous. *Staminodes* ten, sometimes we counted less, subulate, quite glabrous, very small, with its conical and extensive base visible and not concealed by the disk. *Petals* (we have only seen two, removed and broken) approximately linear, with the broken base that allows to induce that they were connate in their base; trinervate toward the middle of their length; the distal part is oblong and something wider, with more nerves.

REGMA adult a little white hairy and provided many stinging bristles, with an apical persistent stylopod. *Calyptra* was hardly developed, hairy, when well developed hispid, almost plane and starry; with cartilaginous *margin*, glabrous and wavy.

OTHER OBSERVATIONS

The best diagnostic characters are the very special summipetiolar glands. As much could be said of them, that are uniques in the section *Jussieuia* (Houston) Pax, as that they are quite lacking. I will explain it. The exact place where the glands are normally inserted is totally clean and devoid any vestige of these. The leaf center, where the radial main nerves converge, has a regular surface, hairy villose, without any type of gland, see see figure b, plate i. But very near, between the edge of the closest lower leaf limb and the distal extremity of the abaxial petiole we see some glands which are quite different from those that are usual in the species of the section *Jussieuia*. They are cylindrical, scarce in number, and spreading. Superficially examined, these glands are a reminder those of *Cnidoscolus Souzae* McVaugh (1944) –which belong, however, to the section *Calyptrosolen* (Mueller argov. ex Pax) Pax & K. Hoffmann, Natürl. Pflanzenfam., ed. 2, 19c: 165 (1931), em. R. McVaugh, Bull. Torrey Bot. Club 71(5): 465, n° 3 (1944)–, maybe they are something shorter, at times forked; I am not sure whether these glands that we describing are homologous of the ordinary ones, or if they are simply similar and not homologous.

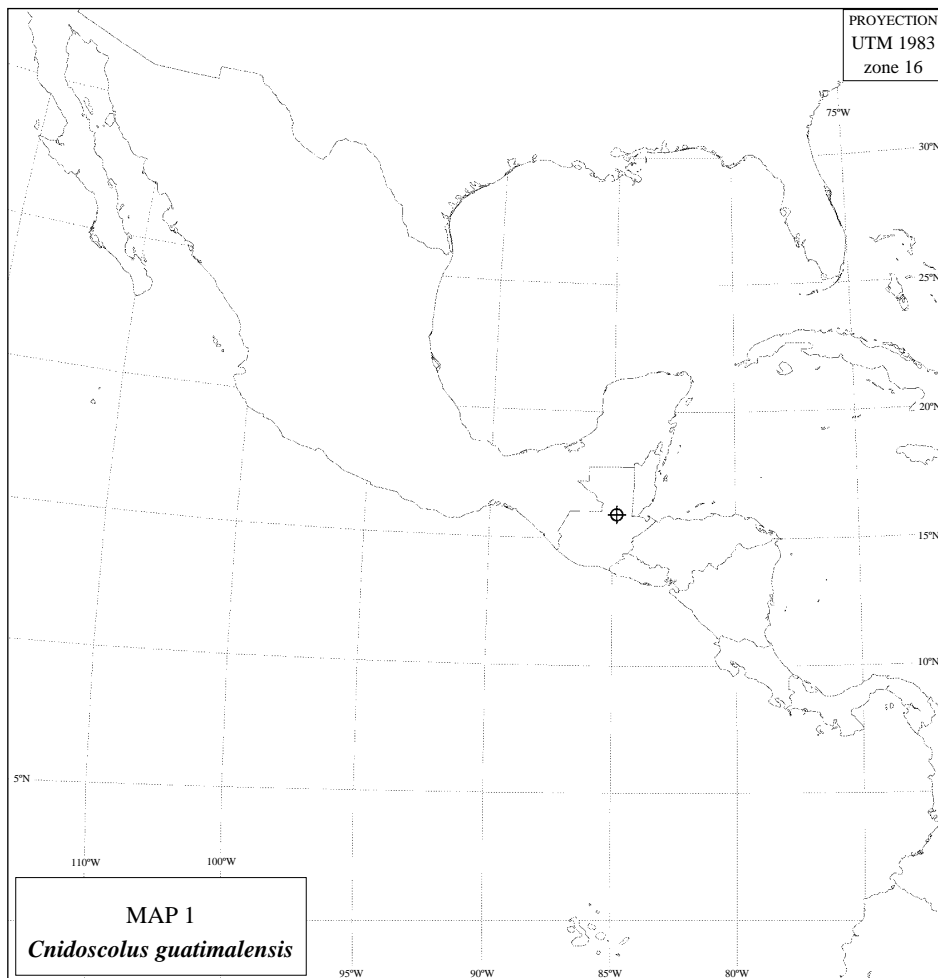
Anyway, the glands of *C. guatemalensis* –plate i, fig. b– seem to be closest to the leaf's limb, at the basal part, that to the exact petiole. It agrees with the attributed craspedophyllous origin to such glands in F. BERNHARD (1966), as we know through G. J. BRECKON (1975: 50).

The large type of stinging bristles located along the petiole experiment, toward the apex, a slight modification in their basal body that it lengthens a lot in some, and it forks with certain frequency. Such lengthened basal bodies, sometimes forked, they seem to establish the transition toward the summipetiolar glands that we have already described above; in them, instead of the body which was narrowly conical, long body and stinging, one finds a small mass of glandular aspect, the rest it is herbaceous.

EXAMINED SPECIMENS

GUATEMALA, (12) PETÉN:

16PAC96 15.96°, -089.85°; Flores (atlas), 15°56'N, 089°53'W; «entlang der Straßen von Flores in Richtung: San Miguel, Tikal, Ciudad Melchor de Mencos, San Luis,



Santa Amelía (S San Francisco), laguna Petexbatún (S Sayaxché), Las Cruces und Naranjo (NW La Libertad)», *R. O. Frisch & H. Kurz 316*, II/III-1990 (W 1992-16949, holo-; type *C. guatimalensis*).

ACKNOWLEDGEMENTS

Ulpiano Emilio Souto Mandelos has processed the digital photographs of the plates ii (page 333) and iii (page 334); he also made the distributional map of this page (336, up). Juan Castillo Gorroño drew plate i (page 332).

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