Endemism and taxonomy of *Chaptalia* (Asteraceae) in the Caribbean. II. Taxonomic treatment

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This is the second part of a revision of the genus *Chaptalia* (Asteraceae) in the Caribbean Islands, containing a taxonomic treatment. The number of recognized species in the genus is reduced from 31 to two endemics, *C. angustata* and *C. dentata*, and two non-endemics, *C. albicans* and *C. nutans*. A morphological analysis led to synonymization of numerous names under *C. dentata*. A key to the species of *Chaptalia* in the Caribbean is provided together with species descriptions, illustrations, and distribution maps.

The first part of this *Chaptalia* revision (Katinas & Zavaro 2014) contained the general background as well as the material and methods and discussed the morphological characters of the various species and the endemism in the Caribbean Islands. This second part concludes the study with a taxonomic revision of the species present in the study area. The species number is reduced from 31 (Katinas & Zavaro 2014: table 1) to four, two of them being endemic to the area.

**Taxonomic treatment**

We conclude in this study that many of the characters employed in previous works to separate the Caribbean species of *Chaptalia*, such as foliar and involucral features, capitulum size, and cypsela length are of quantitative nature and show no discontinuities, although there is some degree of association of characters that are taxonomically helpful (cf. Katinas & Zavaro 2014 and the Appendix therein). Other characters, such as fruit pubescence, are more conservative and allow recognition of taxa. These characters are summarized in the following key to the Caribbean species of *Chaptalia*.

1. Leaves entire, narrowly oblancoate (2.2 × 0.5–2 cm), coriaceous, acute at apex, entire to retrorse-dentate, attenuate at base ........................................... *C. angustata*
1. Leaves shape variable but not narrowly-oblancoate and acute at apex .......................................................... 2
2. Scapes not widened below capitula. Leaves lyrate or pinnatisect, with upper lobe more developed than lateral lobes. Capitula nodding, 150–200-flowered; cypselae with short hairs, with a papillose appearance (short twin hairs) .............................................................. *C. nutans*
2. Scapes widened below capitula. Leaf shape variable. Capitula erect, 14–80-flowered; cypselae with short or long hairs .............................................................. 3
3. Cypselae 3–7.5 mm long, with a hispid appearance (long twin hairs); pappus 4–9 mm long; leaves entire, lobulate, pinnatifid to lyrate ........................................... *C. dentata*
3. Cypselae 7–13 mm long, with very short hairs (glandular hairs), with a subglabrous or dotted appearance; pappus 8–11 mm long; leaves entire to lobulate ........................................... *C. albicans*
Chaptalia albicans (Sw.) Vent. ex B.D. Jacks. (Fig. 1)


Perennial herbs 10–37 cm high, rhizomes 1–1.5 cm long. Leaves 2.5–12.5 × 0.6–2 cm, oblanceolate to elliptical, entire to crenate or retrorse-dentate, planate, acute or obtuse at apex, attenuate at base, pseudopetiolute, membranaceous, glabrous to araneose-pubescent above, white- to yellowish-greenish pubescent beneath. Scapes 9–36 cm long, ebracteate, widened below capitula, tomentose. Capitula 10–25 × 5–25 mm, turbinate to hemispherical, erect. Involucral bracts green, occasionally purple at apex, densely pubescent, scarios at margins, occasionally totally scarious innermost; first series 3–6 × 0.5–1 mm, lanceolate; second series 6–9 × 0.8–1.2 mm, lanceolate; third series 8–12 × 0.8–2 mm, linear-oblong; fourth series 14–21 × 1–1.8 mm, linear-oblong. Florets trimorphic, 45–80, white, pink, papillose, pubescent (glandular 2-seriate); marginal florets as long as involucre, tube 5.5–8 mm long, ligule 4–5 mm long,
inner lip absent, style 7.5–8.5 mm long, branches linear, 1–1.2 mm long; intermediate florets with corollas 2–4 mm long, style 7–8 mm long, branches linear, 1–1.5 mm long; central florets tubulose or tubulose-bilabiate, tube 6–9.5 mm long, lobes 1–1.5 mm long, fertile ovaries, style 6–10 mm long, branches linear, 0.5–1 mm long, anthers 2–2.5 mm long, tails 1–1.2 mm long, papillose, filament papillose. Cypselae elliptical, seminal portion 4–7 mm long, rostrum 3–6 mm long, filiform, pubescent in whole surface (glandular 2-seriate), 5-ribbed. Pappus yellow-red-dish, persistent, bristles 8–11 mm long. Chromosome number: 2n = 48 and ca. 58 (Torres & Liogier 1970, as *C. leiocarpa*).

**Distribution and Habitat:** This species grows in southeastern United States, Mexico, Central America and the Caribbean (Bahamas, Cuba, Dominican Republic, and Jamaica) (Fig. 2). It thrives in open pine forests, grasslands, open and dry ground, and rocky hillsides, 0–2100 m a.s.l. Flowering from March to December.

**Notes.** As explained by Nesom (1984: 398), Linnaeus f. did not cite a specimen when describing *Leontopodium tomentosum*, although there exists a specimen LINN no. 953.16 annotated presumably by Linnaeus f. as ‘*L. tomentosum*’. That specimen was designated as a lectotype by Nesom (1984).

When Swartz (1788) transferred *Leontodon tomentosum* to the genus *Tussilago*, he established *Tussilago albicans* as a nomen novum for this because of the blocking name *T. tomentosa* Ehr., 1788 (Nesom 1984).

The sheet of *Heyde & Lux* 3433 deposited in F has two specimens. One of them, annotated with ‘A’, is the type of *Chaptalia crispula*, and the other one, annotated with ‘B’, is a non-type specimen of *C. nutans*.

As noted by Nesom (1984), *C. albicans* resembles *C. dentata*. The main character to distinguish the species is the exclusively fruit glandular pubescence in *C. albicans* and the presence of long twin hairs in *C. dentata* distributed in the whole surface, and the glandular hairs usually restricted to the rostrum. Another distinguishing character is the pubescence of the leaves. The leaves of *C. albicans* are gla-

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**Fig. 2. Geographical distribution of Chaptalia albicans.** — A: General distribution. — B: Distribution in the Caribbean.
brous above, occasionally araneous-pubescent, and usually yellow-greenish tomentose beneath. The leaves of *C. dentata* are tomentose above, occasionally glabrous or araneous-pubescent, and silvery white beneath. There are however, many specimens of *C. dentata* with a leaf pubescence that resembles that of *C. albicans* and vice versa. This was probably the reason why Nesom (1984) included *C. obovata*, whose type specimens have the leaves with yellowish pubescence below, in the synonymy of *C. albicans*. *Chaptalia obovata*, however, has the cypselae ca. 5 mm long, bearing the hispid pubescence typical of *C. dentata* and is thus treated here as a taxonomic synonym of *C. dentata*.

Although there is some overlapping, the length of cypsela and pappus also helps to distinguish the two species, i.e., the cypsela are 3–7.5 mm long with a pappus 5–9 mm long in *C. dentata*, and the cypsela are 7–13 mm long with a pappus 8–11 mm long in *C. albicans*.

Some specimens of *Chaptalia albicans* can also resemble *C. nutans*, differing by the leaves being entire to crenate or dentate (vs. lyrate with the upper lobe prominent in *C. nutans*), and the peduncles widened below the capitula (vs. not widened in *C. nutans*).


### Chaptalia angustata Urb. (Fig. 3)

Symb. Antill. (Urban) 7: 432. 1912. — **Type:** Dominican Republic. Santo Domingo, prope Constanza, in pineto, 1250 m, II.1910 *H. von Türcheim* 2908 [lectotype designated here US!; isolecotypes F!, GH!, M!, MO!, SI! (fragment); BR, K, NY, S, photographs in LP!]. — **Synotype:** Dominican Republic. Santo Domingo, prope Maniel (sic) de Ocoa, 300 m alt., in declivibus saxosis, XI.1910 *H. von Türcheim* 3708 (BR, photograph LP!).

**Liabium oblancoleatum** Urb. & Ekman, Ark. Bot. 23A: 89. 1931. — **Type:** Dominican Republic. Prov. La Vega, in scopolosis umbrosis Valle Nuevo ad ribulum, Cordillera Central, 2400 m, 17.X.1929 *E. L. Ekman* 13827 (holotype S, Photograph LP!; isotypes GH!, S, photograph LP!).

Perennial herbs 17—35 cm high, rhizomes 1–3 cm long. Leaves 2.2–20 × 0.5–2 cm, narrowly oblancoleate, retrorse-dentate, revolute, acute at apex, attenuate at base, pseudopetiolate, coriaceous, glabrous (occasionally pubescent when young), sometimes bullate with a well demarcated nervature above, whitish, yellow- to red-greenish tomentose beneath. Scapes 11.5–33 cm long, ebracteate, not widened or slightly
wided below capitula, tomentose. Capitula 12–16 × 15–28 mm, turbinate to hemispherical, erect. Involucral bracts lanceolate, linear-oblong, green or purple and scarious at margins, occasionally curled at apex, glabrous or lanose at base; first series 2–6 × 0.3–0.5 mm; second series 4.5–8 × 0.7–1 mm; third series 8–11 × 1–1.2 mm; fourth series 10–13 × 1 mm. Florets trimorphic, 60–120, white, sometimes tinged with purple, papilllose, pubescent; marginal florets longer than involucre, tube 2–4.5 mm long, ligule 6.5–10 mm long, lanceolate, inner lip absent, style 5.5–6 mm long, branches linear, 1–1.5 mm long; intermediate florets with corolla 2–4.5 mm long, style 5–6 mm long, branches linear, 0.8–1.5 mm long; central florets bilabiate, tube 3.5–5 mm long, lips 1.5–3 mm long, fertile ovaries, style 5–7 mm long, branches linear, 0.5–0.8 mm long, anthers 2–2.5 mm long, tails 0.5–1 mm long, papilllose, filament papilllose. Cypselae elliptical, seminal portion 2.5–3.5 mm long, rostrum 0.5 mm long, thick, pubescent in whole surface (twin hairs, glandular hairs), 5-ribbed. Pappus white-yellowish, caducous, bristles 5–6 mm long.

**Distribution and Habitat:** Endemic to southern Dominican Republic and probably Haiti (Fig. 4; see Notes, below). It grows in savannas, steep hillsides, and pine lands, 0–1600 m a.s.l. Flowering from February to July; one specimen (syntype) was flowering in November.

**Notes:** This species is easily recognized by the leaves being entire, strongly coriaceous, linear-oblanseolate, having the adaxial surface sometimes bullate, and the margin usually retrorse-dentate and revolute.
The specimen Ekman 7765 (GH) would be the only one from Haiti (Massif de la Selle) that we could find, but the lack of capitula makes an accurate determination difficult. This same specimen was also the only one cited by Liogier (1996) for Haiti and attributed to *C. angustata* in his *Flora of Hispaniola*. The characteristics of the leaves of this specimen are close to *C. angustata*, although the leaves are more pubescent above. Its location in southeastern Haiti is very close to the distribution of *C. angustata* in southwestern Dominican Republic, both areas with similar ecological and soil conditions.

The type material of *Liabum oblanceolatum* consists only of sterile young specimens. An analysis of the micromorphology revealed that they belong to *C. angustata* due to similarities in the type of vegetative hairs (Gutiérrez & Katinas 2006).

**Chaptalia dentata** (L.) Cass. 1823 (Fig. 5)


**Fig. 4. Geographical distribution of Chaptalia angustata.**


Chaptalia eggersii Urb., Symb. Antill. (Urban) 3: 418. 1903. — Type: Dominican Republic. Sto. Domingo, in graminisima juxta rivulum in Valle Nuevo, 2270 m, Eggers 2220 [holotype B, destroyed; isotype (fragment), SI!].

Chaptalia membranacea Urb., Symb. Antill. (Urban) 3: 418. 1903. — Type: Dominican Republic. Sto. Domingo, prope Puerto Plata, in saxis montis Loma Isabel de la Torre, 670 m, Eggers 1582 [holotype B, destroyed; isotype (fragment), SI!].


Chaptalia crassiisulcata Urb., Repert. Spec. Nov. Regni...
Perennial herbs 6.5–30 cm high, rhizomes 0.3–3.5 cm long. Leaves 1–15 × 0.3–2.2 cm, elliptical-oblongate, oblanceolate, obovate, oblong, elliptical, or lanceolate, entire, crenate, irregularly sinuate, retrorse-dentate, runcinate, pinnatifid to pinnatisect, lyrate, frequently with upper lobe prominent, planate or revolute, acute or obtuse at apex, pseudopetiolate by decurrence of blade, or petiolate, petiole 1–11 cm long, membranaceous to coriaceous, smooth or bullate above, glabrous to aruncate above, white pubescent beneath, sometimes grey-greenish, white-yellowish or yellowish-reddish. Scapes 4–30 cm long, ebracteate, widened below capitula (not very evident in dwarf specimens), tomentose. Capitula 6–20 × 5–20 mm, cylindrical, turbinate to hemispherical, erect. Involutr bracts green or purple, glabrous or pubescent, usually scarious at margins; first series 1–5 × 0.1–0.8 mm, linear, lanceolate; second series 2–8 × 0.2–1.2 mm wide, linear, linear-lanceolate, lanceolate; third series 3.5–12 × 0.2–1.8 mm, linear, linear-lanceolate or oblong; fourth series 5–19 × 0.2–1.5 mm, linear, linear-lanceolate, linear-oblong. Florets trimorphic, 14–80, white (occasionally tinged with pink), papillose, pubescent (glandular biseriate); marginal florets as long as or longer than involucre, tube 2.5–5.5 mm long, ligule 2–6 mm long, inner lip absent, style 3.5–8 mm long, branches linear, 0.5–2 mm long; central florets tubulose or tubulose-bilabiate, occasionally constricted in medial part, tube 3.5–7 mm long, lobes 0.2–2 mm long, fertile ovaries, style 4.5–9.5 mm long, branches lobulate or linear, 0.1–0.8 mm long, anthers 1–2.5 mm long, tails 0.5–2 mm long, glabrous or papillose, filament glabrous or papillose. Cyphelae elliptical to cylindrical, seminal portion 1.5–4 mm long, rostrum 0.2–3.5 mm long, filiform or thick, pubescent in whole surface (rounded or
basic twin hairs, glandular 2-seriate in whole surface or exclusively in rostrum), 5-ribbed. Pappus white-yellowish, yellow-reddish, persistent or caducous, bristles 3–9 mm long.

**Distribution and Habitat:** This species is endemic to the Caribbean, growing in the Bahamas and the Greater Antilles: Cuba, Dominican Republic, Haiti, Jamaica, and Puerto Rico (Fig. 6). It is found in grassy or rocky places, steep hillsides, clay banks, dry roadsides, and woods, 0–2800 m a.s.l. Flowering occurs throughout the year.

**Notes.** The great and continuous variation in leaf characters led to the inclusion of numerous names in the synonymy of *C. dentata*.

In 1755 C. Plumier described and illustrated a *Tussilago* in the posthumous *Plantarum Americanum* without designation of a specific epithet. The earliest legitimate name for *T. dentata* was published by Linnaeus (1763), who named Plumier’s plant and referred to his figure. This illustration in Linnaeus’ own copy of *Plantarum Americanum* was annotated by him as “*T. dentata*”, and designated as lectotype by Nesom (1984).

The MO sheet Curtis 181 has two specimens, one corresponding to *C. dentata* (specimen marked with “A”), and the other corresponding to *C. albicans* (marked with “B”). In the sheet in F of Northrop & Northrop 400 the specimen at the right is *C. albicans* and the other one is *C. dentata*.

The material annotated as type of *C. stenocephala* deposited in San Isidro, Argentina (SI) bears neither a collector name nor a collection number, and there is a note in Burkart’s handwriting that says “de varios ejemplares ex Herb. Urb.” [from several specimens ex Herb. Urb.]. For this reason its status as a type specimen of *C. stenocephala* is dubious.

Burkart (1944: 598) considered *C. obovata* very similar to *C. dentata*, although he maintained the taxa as distinct species. On the other hand, Nesom (1984: 398) included *C. obovata* in the synonymy of *C. albicans*. *Chaptalia obovata*, among other features, has the scapes widened below the capitula and the typical fruit pubescence of *C. dentata*. For that reason, *C. obovata* is included here in the synonymy of *C. dentata*.
Provincia Oriente (Spanish for “east”) is cited in the protologue of several type species. This territory was split up in the past and nowadays it contains the provinces of Granma, Guantánamo, Holguín, Las Tunas, and Santiago de Cuba.


— Cuba. Prov. Camagüey: Loma del Jagüey, 1889 Eggers 4986 (F, SI, US). Prov. Cienfuegos: Cumanayagua, Mandulo y Pico San Juan, 2004 Regalado & Sanchez s.n. (HAC); Pico Turquino, 1922 Ekman 8912 (F); El Pilón, Loma Mota, to a largo del río Mota, Inchantajiske s.n. (HAC). Prov. Guantánamo: Upper valley of Río Navas, 1910 Shafer 4401 (F, GH, US); Pinales de Monte Verde to Falls of Río Palenque, 1911 Shafer 8876 (F, GH, US); prope villam Monte Verde, 1856/1860 Wright 333 (F, GH, US); Loma Menquera, 1910 Shafer 3832 (US); vicinities of Baracoa, 1902 Pollard et al. 214 (F, GH, MO). Baracoa region, Altos de Farola, 35 km (airline) S of Baracoa region, 1910 Shafer 3832 (US); vicinities of Baracoa, 1902 Pollard et al. 214 (F, GH, MO); Baracoa region, Altos de Farola, 35 km (airline) S of Baracoa, 20°08´N, 74°29´W, 1951 Webster 4018 (GH); Pinares del norte del Yunque de Baracoa, 1960 Alain & Acuña 7616 (HAC); Abra del Yunque de Baracoa, 1960 Alain & Acuña 7664 (HAC), id., 1956 Alain & Morton 5069 (HAC), 1960 Alain et al. 22398 (HAC); orilla del río Jaucó, 1924 León 11714 (HAC); Arroyo Frio, Sierra de Imías, 1924 León 12136 (HAC); Sierra de Imías, cabezadas del Río Jojo, 1975 Bisse & Mayer HAJB 27701 (HAC); Bayate, NW Guantánamo, 1923 Hioram 6946 (HAC). Prov. Habana: San Francisco de Paula, 1907 León 229 (HAC). Prov. Holguín: Sierra de Nipe, 1978 Fernández & Herrera s.n. (HAC 35609); Sierra de Nipe, San José, 1941 Howard 6211 (GH); Sierra Nipe, near Woodfred, Rocky Arroyos, 1909 Shafer 3236 (F, GH, US); Loma Mensura, N de Sierra de Nipe, 2007 Ventosa et al. s.n. (HAC 42617), id., 1960 Alain et al. 7980, 7991 (HAC); cayo de Sabinas, La Mensura, Sierra de Nipe, 1960 Alain & Acuña 7896 (HAC); Pinares de Mayari, Sierra de Nipe, 1940 León & Acuña 17977 (HAC); Sierra de Nipe, Mayari, 1940, Carabiałia 3759 (HAC); San José, Sierra de Nipe, 1941 León & Clemente 20343 (HAC); Pinares junto al Batey de Corea, Sierra Cristal, Mayari, 1956 Alain & López Figueiras 5440 (HAC); a los lados del camino en la subida a Sierra Cristal, 1956 Alain et al. 5671 (HAC); Río Cristal, Sierra Cristal, Mayari, 1965 Alain et al. 5666 (HAC); Río Miguel, Sierra Cristal, Mayari, 1956 Alain et al. 5909 (HAC). Prov. Isla de la Juventud: Lomas de Sibugán, near Río Navarro, 1922 Ekman 13897 (GH). Prov. Matanzas: Yamuri Arriba to Bermejal, 1911 Shafer 8437 (GH, US); Pinar del Río: Cayálbana La Palma, 1952 Acuña 22514 (HAC); Cascada de Soroa, Candelaria, 1951 Acuña 16744 (HAC). Prov. Sancti Spiritus: Sierra del Escambray, to a largo del sender of Topes de Collantes hacia el Salto del Caburén, 79°50´W, 22°22´N, 1993 Acevedo R. et al. 5452 (US, HAC); mountains of Trinidad San Blas-Buenos Aires, Loma La Ventana, 1941 Howard 6498 (GH), id., 1941 Howard 5210 (GH), id., Pico Potrerillo, 1922 Ekman 14007 (F); Buenos Aires, 1829 León 13982 (GH), id., Las Villas, 1956 Morton 16372 (US); camino Caburén, Topes de Collantes, Las Villas, 1957 Alain 6434 (HAC); Topes de Collantes, Villa Clara, 1939 Acuña 11396 (HAC); Salto de Caburén, Trinidad, Topes de Collantes, 1959 Alain 6732 (HAC). Prov. Santiago de Cuba: Vicinity of El Cobre, 1902 Pollard & Palmer 396 (F, GH, MO, US); Cobre, 1922 Ekman 15702 (F, GH, US); Sierra del Cobre, 1916 Ekman 7800 (F); Sierra Maestra, Arroyo Bayajá, one of El Cristos tributaries, 1922 Ekman 14757 (F, GH, US); Rio Oto, about 30 km (airline) S of Bayamo, approximately 20°06´N, 76°37´W, 1951 Webster 4126 (GH), id., Río Buey, 1941 Morton & Acuña 3821 (US); km 20 al S de Sabanilla, Via Azul, 1956 Alain & Morton 5165 (HAC); Florida Blanca, cerca del Salto, 1960 López Figueiras 542 (HAC); Pico Turquino, Sierra Maestra, 1935 Acuña 9730 (HAC); Río Yao, 1943 Victorin 21410 (HAC); Camino de la Aguada, Loma del Gato, 1944 Alain 228 (HAC); río Yara, arroyo de León, Sierra Maestra, sur de Oriente y Pico Turquino, 1922 León 10820 (HAC). Without locality: Wright s.n. (MO 2095188); 1922 Ekman s.n. (SI); s/leg. (SI); 1860/1864 Wright 2873 (F, GH, MO); 1849 Rivera 180 (GH); 1865 Wright s.n. (GH); Wright s.n. (GH, SI). — Dominican Republic. Prov. Azua: Valle de San Juan, at Río Jinaja, 1929 Ekman 13391 (GH). Prov. Baraoa: Prope Las Salinas, 1911 Fuertes 1409 (GH, US). Distrito Nacional: Sin loc., Bertero s.n. (MO 2095172); Santo Domingo, 1887 Eggers 1656 (M), Crevice of Yard of Monastery Cerro, 1946 Allard 14536 (US); El Rubio, 1946 Jiménez 1100 (LP); Jaiquí Picado, about 20 mi. W of Santiago, 1969 Liogier 15301 (GH, US), 15163 (GH), id., Limestone Hills, 1969 Liogier 15370 (US); El Cercado, S of town, 1968 Liogier 12466 (GH, US); Pinar de Caimito, about 5 mi. NW of San José de las Matas, 1969 Liogier 16274 (GH, US); Juan Santiago, 1946 R. Howard & E. Howard 9205 (GH); along Mao River, El Aguacate, La Leonor, Monción, 1968 Liogier 16309 (US). Prov. La Vega: La Manacilta, about 8 mi. S of La Vega, 1969 Liogier 15825 (GH); Cordillera Central, 31 km S of the calle principal of Constanza, in the camino a San José de Ocoa (a 6 km S de Valle Nuevo), 18°47´N, 70°40´W, 1982 Zanoni 20641 (MO); vicinity of Lagunita (Lagüita), 1967 Gastony et al. 293 (GH); in the monumento La Pirámide, 48.6 km N del Parque Central de San José de Ocoa, in the camino a Constanza, 18°43´N, 70°36´W, 1982 Zanoni et al. 19176 (MO); prope Constanza, in Valle Nuevo, 1910 von Türkheim 3452 (M). Prov. Monseñor Nouel: Loma Puguera, Bonao, 1972 Liogier 18551 (F). Prov. Pedernales: Sierra de Bahoruco, in las minas de bauxita de la Alcoa Exploration Company, in Aitelliar, aprox.
Fig. 7. Chaptalia nutans

Chaptalia nutans (L.) Pol. (Fig. 7)


Distribution and habitat: This is the most widely distributed species of the genus, growing from southern United States to central Argentina, including the Caribbean (Fig. 8). It is found in moist places like ditches in roadside forests, in disturbed soils, woods, grasslands and on rocks, at an elevation 0–2745 m a.s.l. Flowering occurs throughout the year.

Notes. Chaptalia nutans may resemble C. dentata with lyrate leaves. The two species, however, can be easily distinguished by the type of pubescence of the cypselae, and C. nutans does not have widened scapes below the capitula.

Cypselae elliptical, seminal portion 4–5 mm long, rostrum 4–12 mm long, filiform, pubescent (rounded twin hairs). Pappus white-yellowish, caducous, bristles 8–13 mm long. Chromosome number: 2n = 48 (Baldwin & Speese 1947, Cave 1965, Fedorov 1969, Torres & Liogier 1970, Sundberg et al. 1986) and 2n = 50 (Teppner & Tropper 1984); n = 24 (Hunziker et al. 1989) and n = 25 (Teppner & Tropper 1984).
Fig. 8. Geographical distribution of Chaptalia nutans. — A: General distribution. — B: Distribution in the Caribbean.

N of Charlotte Amalia, 1913 Britton & Marble 389 (US); Signal hill, 1880 Eggers 166 (M); without locality, 1898 Eggers s.n. (M 24098). Tortola: Road Irvin to High Bush, 1913 Britton & Shafer 781 (US). Without country. Antillas, Husnot 30 (LP); 1884 leg? 385 (MO 4675963).

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