



## Checklist of *Bauhinia* sensu stricto (Caesalpinaceae) in Brazil

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**Background and aims** – A checklist and key of the Brazilian species of the genus *Bauhinia* L. are presented. The species examined all have an arboreal or shrub habit or are occasionally vines or decumbent shrubs, although never with tendrils.

**Methods** – Information was gathered and collated from an already prepared list of nomenclatural types, the examination of approximately 2,100 specimens stored in approximately 100 herbaria, and by consultation of literature about the genus.

**Key results** – All taxonomic categories including section, series, species, subspecies, and variety, as well as the principal synonyms are included. In addition, references to illustrations in the most recent revisions are included. Accompanying information includes data recorded on the collection labels of herbarium specimens such as state, municipality, month and year of collection, reproductive stage of the specimens (floral bud, flower, or fruit), collector's name and number, and the herbaria where the specimens (including duplicates) are deposited. The list contains 57 species, two subspecies, and seven varieties of the genus *Bauhinia* native to Brazil. *Bauhinia pinheiroi* is illustrated here for the first time.

**Key words** – *Bauhinia*, Brazil, Cercideae, South America, Leguminosae.

### INTRODUCTION

The Cercideae is essentially a tropical group and is recognized by having palmately nerved leaves and independent nyctitropic movements of the two lobes of each leaf (which are borne on a single pulvinus), and seeds with the lens on the same side of the hilum as the micropyle (Wunderlin et al. 1981). A reorganisation of the tribe Cercideae was proposed by Wunderlin et al. (1987), with the genus *Bauhinia* L. being subdivided into four subgenera, 22 sections, and thirty new series, and having a total of approximately 300 species. Lewis & Forest (2005) presented a new phylogenetic diagram of the tribe Cercideae with twelve genera and an estimated 335 species. These authors subdivided *Bauhinia* into eight genera: *Bauhinia* s. str., *Gigasiphon* Drake, *Barklya* F.Muell., *Piliostigma* Hochst., *Lysiphyllum* (Benth.) de Wit, *Tylosema* (Schweinf.) Torre & Hillc., *Lasiobema* (Korth.) Miq. and *Phanera* Lour.

The genus *Bauhinia* has been reviewed in the extra-Brazilian neotropical region through regional studies (Britton & Killip 1936, Standley 1937, Amshoff 1939, Burkart 1943, Macbride 1943, Pittier 1945, Standley & Steyermark 1946,

Schery & Woodson 1951, Wunderlin 1976, 1983, 1998, 2001, Fortunato 1986, 1996, Turner 1994).

The original studies of the genus *Bauhinia* in Brazil were prepared by Bongard (1836) and Vogel (1839). Bentham (1870) later presented a study of 64 species classified into three sections. These initial works were then followed by a period in which numerous new species were described by European botanists. Most of the references to Brazilian species of *Bauhinia* consist of lists resulting from regional floristic studies. *Bauhinia* species in the central-western region of Brazil were reviewed by Malme (1905), Vaz & Marquete (1993), and Vaz (2003); those of the northern region were studied by Ducke (1922, 1925a, 1925b, 1930, 1950, 1959a) and Lewis & Owen (1989); those of the northeastern region by Ducke (1953, 1959b), Lewis (1987), and Vaz (1995); and the southeastern and southern regions were studied by Barroso (1965), Vaz (1984, 1993), Vaz & Lima (1986), Vaz & Silva (1995), and Bortoluzzi et al. (2006).

Recently a synopsis of *Bauhinia* sect. *Pauletia* (Cav.) DC. was published (Vaz & Tozzi 2003a, 2003b, 2005). Revisions

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**Key to the genera of tribe Cercideae in Brazil**


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1. Fruits with dorsal wing; corolla pseudo-papilionaceous; temperate northern hemisphere, cultivated as an ornamental in southern Brazil.....*Cercis*
1. Fruits with or without ventral margin; corolla only slightly zygomorphic; tropical region.....2
2. Climbers or vines; branches with spiral tendrils..... *Phanera*
2. Trees or shrubs; if branches flexuous, never with tendrils .....*Bauhinia*

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**Key to the species of *Bauhinia* s. str. in Brazil**


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1. Branches with true thorns, these sometimes absent on herbarium specimens; calyx campanulate.....2
1. Branches without thorns, but sometimes with infra-stipular prickles or unarmed; calyx spathaceous or divided at anthesis into (2-)3-5 lobes.....3
2. Floral buds pyriform to obovate; petals with apex retuse to emarginate; pedicels 2-5(-7) mm long.....*B. glaziovii*
2. Floral buds ellipsoidal to lanceolate; petals with rounded apices; pedicels 1-1.2 cm long.....*B. uruguayensis*
3. Flowers robust, pre-anthesis buds tubular to clavate, 3-18 cm long; hypanthium not urceolate; petals (2.5-3-)4-11(-18) × 2.6-7 cm.....5
3. Flowers delicate, buds fusiform in pre-anthesis phase, apex acuminate, 1.5-2.5 cm long; hypanthium urceolate; petals 1.5-2 × 0.4-0.5 cm.....4
4. Fertile stamens, three (figs 1 & 2) .....*B. pinheiroi*
4. Fertile stamens, ten.....*B. brachycalyx*
5. Pod dehiscent; petals never woolly.....6
5. Pod indehiscent; petals woolly externally, including the claw.....*B. bauhinioides*
6. Fertile stamens 10, filaments of unequal size.....11
6. Fertile sepalous stamens 5, these alternating with 5 reduced stamens, each having deficient or reduced anthers or filiform staminoids.....7
7. Floral buds 5-striated to 5-winged, not corniculate.....8
7. Floral buds smooth, 5-horned at apex, horns divaricate.....*B. corniculata*
8. Young branches and buds pubescent.....9
8. Young branches and buds hirsute to hirsute-tomentose.....*B. vespertilio*
9. Petals linear, 1 mm wide.....10
9. Petals elliptical to elliptical-lanceolate, 7-8 mm wide.....*B. hagenbeckii*
10. Leaf lobes widely elliptic, with elevated veins along their borders.....*B. marginata*
10. Leaf lobes arched-divaricate without elevated veins along their borders.....*B. pentandra*
11. Inflorescences fasciculiform, with 2-6 flowers, or composed of successive pairs of flowers on leafy branches, or sometimes a terminal leafless pseudoraceme; petals unguiculate; fruit valves with ventral margins not elevated; pollen grains 3-6-aperturate.....12
11. Inflorescences racemiform, generally with 7-15 flowers; petals not unguiculate; fruit valves with ventral margins; pollen grains inaperturate.....*B. acuminata*
12. Plants without prickles, but with intra-stipular extrafloral nectaries usually present, although sometimes rudimentary or aborted; petals linear to linear-lanceolate, except in *B. cheilantha* with petals being flabellate-veiny; inflorescences of the pseudo-racemose terminal aphyllous type.....21
12. Plants aculeate (with paired infra-stipular prickles); extrafloral nectaries absent; petals oblanceolate to obovate-spathulate; partial inflorescences on leafy branches.....13
13. Bud gradually narrowing towards apex; hypanthium turbinate to linear; calyx spathaceous and fenestrate at base; branches, inflorescence and pod ferruginous-tomentose to glabrous.....14
13. Bud with apex clavate; hypanthium tubular to pyriform; calyx creased longitudinally forming 2-3 lobes united at the apex, or sub-spathaceous and deeply fenestrated at base; branches, inflorescence and pod-tomentose.....*B. mollis*
14. Leaves bilobate with lobes joined for 1/3-4/5 of their length.....16
14. Leaves entire, sometimes with bifid apex.....15

15. Infra-stipular prickles recurved; leaves elliptical to ovate-oblong, generally 5–11 × 2.5–3.8 cm; petals 5–5.5 × 1.1 cm.....*B. integerrima*
  15. Infra-stipular prickles generally ascendant to erect; leaves widely ovate to ovate-lanceolate, generally 6–10 × 4.3–6.5 cm; petals c. 9 × 0.8 cm.....*B. ovata*
  16. Floral buds 4.5–7.5 cm long in pre-anthesis phase; petals elliptic-obovate to oblanceolate. 4.5–9 × 0.8–2.5 cm; legumes up to c. 1.5–1.8 × 13–14 cm.....18
  16. Floral buds c. 11 cm long in pre-anthesis phase; petals linear-oblong to narrow-oblanceolate or spatulate, generally 9–11 × 1.6–2.6 cm; pods to c. 2.2–3 × 30–40 cm.....17
  17. Leaf lobes ovate-lanceolate, generally joined for c. 1/2 of their length.....*B. forficata*
  - 17a. Floral buds with acute apices; leaves chartaceous, truncated or rounded at base.....subsp. *forficata*
  - 17b. Floral buds with thickening near apical region; leaves sub-coriaceous, rounded to cordate at base.....  
.....subsp. *pruinosa*
  17. Leaf lobes ovate-oblong, joined for c. 2/3 or more of their length.....*B. acreana*
  18. Leaves as long, or longer than wide; ovary and stipe tomentose to glabrescent.....19
  18. Leaves wider than long; ovary and stipe glabrous, or having only glandular trichomes.....*B. platypetala*
  19. Leaf lobes joined for c. 1/2 to 2/3 of their length.....20
  19. Leaf lobes joined for less than 1/3 of their length.....*B. affinis*
  20. Branches straight or flexuous, cinereous and glabrescent.....*B. catinae*
  20. Branches zig-zag, whitish and tomentose.....*B. albicans*
  21. Stigma bilobate; pod woody, obovate, 2.5–3.8 cm wide; pollen grains porate, sexine with supratectal spinescent processes.....*B. tarapotensis*
  21. Stigma clavate; pod coriaceous, narrow-oblong to linear, up to 3 cm wide; pollen grains colpate or colpate, sexine usually with geminate supratectal processes.....*B. sect. Pauletia ser. Cansenia\**
- \*See Vaz & Tozzi (2003b) for identification key to the species of ser. *Cansenia*.

of other sections of neotropical *Bauhinia* were published by Wunderlin (2006, 2009) and Wunderlin & Eilers (2009).

The present work presents a checklist of the Brazilian species of the genus *Bauhinia* L. s. str. (Lewis & Forest 2005) corresponding to species having an arboreal or shrub habit or occasionally semi-decumbent woody plants and never with tendrils. *Bauhinia pinheiroi*, a rare species found exclusively in eastern Atlantic coastal forest, is here illustrated for the first time.

Accepted names of specific and infraspecific taxa are listed alphabetically. Synonyms are included. Associated synonyms are listed chronologically for each accepted taxon (both homotypic and/or heterotypic). Author citations follow Authors of Plant Names (Brummitt & Powell 1992).

#### CHECKLIST OF *BAUHINIA* S. STR. IN BRAZIL

***Bauhinia acreana*** Harms (sect. *Pauletia*, ser. *Aculeatae*)  
Habit: tree or shrub. Status: native.  
Ref.: Vaz & Tozzi 2005: 480.

***Bauhinia acuminata*** L. (sect. *Pauletia*, ser. *Acuminatae*)  
Habit: tree or shrub. Status: cultivated.  
Ref.: Bandyopadhyay et al. 2005: 765. Iconography: Bandyopadhyay et al.: fig. 1.

***Bauhinia acuruana*** Moric. (sect. *Pauletia*, ser. *Cansenia*)  
Syn.: *Bauhinia acuruana* var. *nitida* Benth., *Bauhinia lamprophylla* Harms  
Habit: shrub or subshrub. Status: native.  
Ref.: Vaz & Tozzi 2003b: 76. Iconography: Vaz & Tozzi 2003b: figs 6 & 7.

*Bauhinia acuruana* Moric. var. *nitida* Benth. = ***Bauhinia acuruana*** Moric.

***Bauhinia affinis*** Vogel (sect. *Pauletia*, ser. *Aculeatae*)  
Syn.: *Pauletia affinis* (Vogel) A.Schmitz  
Habit: tree, treelet or shrub. Status: native.  
Ref.: Vaz & Tozzi 2005: 482, Bortoluzzi et al. 2006: 32. Iconography: Bortoluzzi et al. 2006: fig. 6.

***Bauhinia albicans*** Vogel (sect. *Pauletia*, ser. *Aculeatae*)  
Habit: shrub. Status: native.  
Ref.: Rodrigues & Vaz 2008: 450. Iconography: Rodrigues & Vaz 2008: fig. 1.

*Bauhinia amplifolia* Ducke = ***Bauhinia tarapotensis*** Benth.  
*Bauhinia angulicaulis* Harms = ***Bauhinia unguolata*** L. var. ***cuiabensis*** (Bong.) Vaz

*Bauhinia aromatica* Ducke = ***Bauhinia cheilantha*** (Bong.) Steud.

***Bauhinia aureopunctata*** Ducke (sect. *Pauletia*, ser. *Cansenia*)  
Habit: tree, treelet or shrub. Status: native.  
Ref.: Vaz & Tozzi 2003b: 80.

***Bauhinia bauhinioides*** (Mart.) J.F.Macbr. (sect. *Pauletia*, ser. *Perlebia*)  
Syn.: *Perlebia bauhinioides* Mart. ex Spix & Mart., *Pauletia bauhinioides* (Mart.) A.Schmitz, *Bauhinia microphylla* Vogel  
Habit: treelet or shrub. Status: native.  
Ref.: Vaz & Tozzi 2005: 490. Iconography: Fortunato 1986: fig. 4, Pott & Pott 1994: 132.

***Bauhinia bicolor*** (Bong.) Steud. (sect. *Pauletia*, ser. *Cansenia*)



**Figure 1** – *Bauhinia pinheiroi* in Espírito Santo State, Brazil: A, flowering branch, scale bar 5cm; B, buds and flowers in detail, scale bar 3cm. Photographs by Claudio Nicoletti de Fraga, 2008.

Habit: tree, shrub or subshrub. Status: native.

Ref.: Bongard 1836: 117. Iconography: Bongard 1836: tab. VI.

*Bauhinia bicuspidata* Benth. = *Bauhinia longispis* Spruce ex Benth.

*Bauhinia bombaciflora* Ducke (sect. *Pauletia*, ser. *Cansenia*)  
Habit: treelet or shrub. Status: native.

Ref.: Vaz & Tozzi 2003b: 80. Iconography: Ducke 1922: 104, Vaz & Tozzi 2003b: fig. 4b.

*Bauhinia bongardii* Steud. = *Bauhinia brevipes* Vogel

*Bauhinia brachycalyx* Ducke (sect. *Amaria*)

Habit: tree. Status: native.

Ref.: Ducke 1947: 12.

*Bauhinia brasiliensis* Vogel = *Bauhinia forficata* Link subsp. *forficata*

*Bauhinia breviloba* Benth. = *Bauhinia forficata* Link subsp. *forficata*

*Bauhinia brevipes* Vogel (sect. *Pauletia*, ser. *Cansenia*)

Syn.: *Pauletia ferruginea* Bong., *Bauhinia bongardii* Steud.

Habit: shrub. Status: native.

Ref.: Vaz & Tozzi 2003b: 81. Iconography: Vaz 2003: figs 1 & 2.

*Bauhinia burchellii* Benth. (sect. *Pauletia*, ser. *Cansenia*)

Habit: shrub or subshrub. Status: Native.

Ref.: Vaz & Tozzi 2003b: 83.

*Bauhinia caloneura* Malme (sect. *Pauletia*, ser. *Cansenia*)

Habit: treelet or shrub. Status: native.

Ref.: Vaz & Tozzi 2003b: 83. Iconography: Vaz & Tozzi 2003b: figs 5a–d.

*Bauhinia campestris* Malme (sect. *Pauletia*, ser. *Cansenia*)

Habit: subshrub. Status: native.

Ref.: Vaz & Tozzi 2003b: 84. Iconography: Vaz & Tozzi 2003b: fig. 8.

*Bauhinia candelabriflora* R.S.Cowan (sect. *Pauletia*, ser. *Cansenia*)

Habit: treelet or shrub. Status: native.

Ref.: Vaz & Tozzi 2003b: 86.

*Bauhinia candicans* Benth. = *Bauhinia forficata* Link subsp. *pruinosa* Fortunato & Wunderlin

*Bauhinia catingae* Harms (sect. *Pauletia*, ser. *Aculeatae*)

Habit: tree or shrub. Status: native.

Ref.: Vaz 2003: 35, Vaz & Tozzi 2005: 482.

*Bauhinia cheilantha* (Bong.) Steud. (sect. *Pauletia*, ser. *Cansenia*)

Syn.: *Pauletia cheilantha* Bong., *Bauhinia aromatica* Ducke

Habit: tree or shrub. Status: native.

Ref.: Vaz & Tozzi 2003b: 87, Iconography: Vaz & Tozzi 2003b: figs 5b & c, 9.

*Bauhinia choriophylla* Vogel = *Bauhinia rufa* (Bong.) Steud.

*Bauhinia cinnamomea* DC. (sect. *Pauletia*, ser. *Cansenia*)

Habit: treelet or shrub. Status: native.

Ref.: Vaz & Tozzi 2003b: 90.

*Bauhinia conwayi* Rusby (sect. *Pauletia*, ser. *Cansenia*)

Syn.: *Bauhinia tumupasensis* Rusby, *Bauhinia straussiana* Harms

Habit: treelet or shrub. Status: native.

Ref.: Vaz & Tozzi 2003b: 90.

*Bauhinia cordata* Vogel = *Bauhinia holophylla* (Bong.) Steud.

*Bauhinia corniculata* Benth. (sect. *Pauletia*, ser. *Pentandrae*)

Habit: shrub. Status: native.

Ref.: Vaz & Tozzi 2005: 488.

*Bauhinia corumbensis* S.Moore = *Bauhinia mollis* (Bong.) D.Dietr.



**Figure 2** – *Bauhinia pinheiroi*: A, branch flowering and fruiting; B, extrafloral intrastipular nectary; C, bud; D, flower showing spathecalyx; E, flower showing fertile stamens and staminodes; F, flower with petals detached showing staminal sheath; G, longitudinal section of flower showing hypanthium with reduced ovary, stamens and staminodes. A, from Mattos Silva *et al.* 529 (RB); B–C from Martinelli 14822 (RB); D–G from Fraga 2086 (RB). Drawn by A.L. de Souza.

*Bauhinia cujabensis* (Bong.) Steud. var. *ferruginea* Chodat & Hassl. f. *ferruginea* = *Bauhinia unguolata* L. var. *cuibensis* (Bong.) Vaz

*Bauhinia cupulata* Benth. (sect. *Pauletia*, ser. *Cansenia*)

Syn.: *Bauhinia cupulata* Benth. var. *longifolia* Benth.

Habit: treelet or shrub. Status: native.

Ref.: Vaz & Tozzi 2003b: 91. Iconography: Vaz & Tozzi 2003b: figs 10 & 11.

*Bauhinia cupulata* Benth. var. *longifolia* Benth. = *Bauhinia cupulata* Benth.

*Bauhinia curvula* Benth. (sect. *Pauletia*, ser. *Cansenia*)

Syn.: *Bauhinia elongipes* R.S.Cowan

Habit: shrub or subshrub. Status: native.

Ref.: Vaz & Tozzi 2003b: 95. Iconography: Vaz & Tozzi 2003b: figs 12 & 13.

*Bauhinia dubia* G.Don (sect. *Pauletia*, ser. *Cansenia*)

Syn.: *Bauhinia nitida* Benth., *Bauhinia viridiflorens* Ducke

Habit: shrub or subshrub. Status: native.

Ref.: Vaz & Tozzi 2003b: 98; Vaz 2003: 43. Iconography: Vaz & Tozzi 2003b: figs 14 & 15.

*Bauhinia dumosa* Benth. var. *dumosa* (sect. *Pauletia*, ser. *Cansenia*)

Habit: shrub or subshrub. Status: native.

Ref.: Vaz & Tozzi 2003b: 101.

*Bauhinia dumosa* Benth. var. *viscidula* (Harms) Vaz & R.Marquete (sect. *Pauletia*, ser. *Cansenia*)

Syn.: *Bauhinia viscidula* Harms

Habit: shrub or subshrub. Status: native.

Ref.: Vaz & Tozzi 2003b: 102.

*Bauhinia elongipes* R.S.Cowan = *Bauhinia curvula* Benth.

*Bauhinia forficata* Link subsp. *forficata* (sect. *Pauletia*, ser. *Aculeatae*)

Syn.: *Bauhinia forficata* Link var. *longiflora* (Bong.) Benth., *Bauhinia brasiliensis* Vogel, *Bauhinia breviloba* Benth., *Bauhinia forficata* Link var. *latifolia* Benth.

Habit: tree or treelet. Status: native.

Ref.: Vaz & Tozzi 2005: 483, Bortoluzzi et al. 2006: 37. Iconography: Bentham 1870: v. 15 (2). tab. 50, Vaz & Silva 1995: fig. 1, Bortoluzzi et al. 2006: figs 7A–G.

*Bauhinia forficata* Link var. *latifolia* Benth. = *Bauhinia forficata* Link subsp. *forficata*

*Bauhinia forficata* Link var. *longiflora* (Bong.) Benth. = *Bauhinia forficata* Link subsp. *forficata*

*Bauhinia forficata* Link var. *platypetala* (Burch. ex Benth.) Wunderlin = *Bauhinia platypetala* Burch. ex Benth.

*Bauhinia forficata* Link subsp. *pruinosa* (Vogel) Fortunato & Wunderlin (sect. *Pauletia*, ser. *Aculeatae*)

Syn.: *Bauhinia pruinosa* Vogel, *Bauhinia candicans* Benth.

Habit: tree, treelet or shrub. Status: native.

Ref.: Vaz & Tozzi 2005: 483, Bortoluzzi et al. 2006: 41. Iconography: Bortoluzzi et al. 2006: figs 7H & I.

*Bauhinia fusconervis* (Bong.) Steud. (sect. *Pauletia*, ser. *Cansenia*)

Syn.: *Bauhinia sellowiana* Vogel, *Pauletia fusconervis* Bong.

Habit: shrub. Status: native.

Ref.: Vaz & Tozzi 2003b: 103.

*Bauhinia gardneri* Benth. (sect. *Pauletia*, ser. *Cansenia*)

Habit: subshrub or shrub. Status: native.

Ref.: Vaz & Tozzi 2003b: 104.

*Bauhinia geminata* Vogel = *Bauhinia longifolia* (Bong.) Steud.

*Bauhinia glaziovii* Taub. (sect. *Benthamia*)

Syn.: *Pauletia glaziovii* (Taub.) A.Schmitz

Habit: shrub or tree. Status: native.

Ref.: Fortunato & Wunderlin 1985: 324. Iconography: Fortunato & Wunderlin 1985: fig. 2.

*Bauhinia goyazensis* Harms (sect. *Pauletia*, ser. *Cansenia*)

Habit: subshrub or shrub. Status: native.

Ref.: Vaz & Tozzi 2003b: 104.

*Bauhinia grandifolia* (Bong.) Steud. (sect. *Pauletia*, ser. *Cansenia*)

Syn.: *Pauletia grandifolia* Bong.

Habit: treelet or shrub. Status: native.

Ref.: Vaz & Tozzi 2003b: 106.

*Bauhinia guaranitica* Lindm. = *Bauhinia uruguayensis* Benth.

*Bauhinia hagenbeckii* Harms (sect. *Pauletia*, ser. *Pentandrae*)

Syn.: *Bauhinia hassleriana* Chodat

Habit: shrub. Status: native.

Ref.: Wunderlin 1968: 245.

*Bauhinia hassleriana* Chodat = *Bauhinia hagenbeckii* Harms

*Bauhinia hermesiana* N.F.Mattos = *Bauhinia uruguayensis* Benth.

*Bauhinia heterandra* Benth. = *Bauhinia pentandra* (Bong.) D.Dietr.

*Bauhinia hirsuta* (Bong.) Vogel = *Bauhinia vespertilio* S.Moore

*Bauhinia hirsutiflora* Vaz = *Bauhinia vespertilio* S.Moore

*Bauhinia holophylla* (Bong.) Steud. (sect. *Pauletia*, ser. *Cansenia*)

Syn.: *Pauletia holophylla* Bong., *Pauletia dodecandra* Bong., *Bauhinia cordata* Vogel

Habit: subshrub, treelet or shrub. Status: native.

Ref.: Vaz & Tozzi 2003b: 106. Iconography: Bentham 1870: tab. 48, Vaz & Tozzi 2003b: figs 16 & 17.

*Bauhinia holophylla* (Bong.) Steud. var. *paraensis* (Ducke) Wunderlin = *Bauhinia longicuspis* Spruce ex Benth.

*Bauhinia integerrima* Mart. ex Benth. (sect. *Pauletia*, ser. *Aculeatae*)

Syn.: *Bauhinia odoratissima* Moric., *Pauletia odoratissima* (Moric.) A.Schmitz

Habit: shrub. Status: native.

Ref.: Vaz & Tozzi 2005: 483. Iconography: Moricand 1840: tab. 52 (sub nom. *B. odoratissima*).

*Bauhinia intermedia* Vogel = *Bauhinia rufa* (Bong.) Steud.

*Bauhinia lamprophylla* Harms = *Bauhinia acuruana* Moric.

*Bauhinia leptantha* Malme (sect. *Pauletia*, ser. *Cansenia*)

Habit: treelet or shrub. Status: native.

Ref.: Vaz & Tozzi 2003b: 107.

**Bauhinia longicuspis** Spruce ex Benth. (sect. *Pauletia*, ser. *Cansenia*)

Syn.: *Bauhinia bicuspidata* Benth., *Bauhinia holophylla* (Bong.) Steud. var. *paraensis* (Ducke) Wunderlin, *Bauhinia stenocardia* Standl.

Habit: treelet or shrub. Status: native.

Ref.: Vaz & Tozzi 2003b: 110.

**Bauhinia longifolia** (Bong.) Steud. (sect. *Pauletia*, ser. *Cansenia*)

Syn.: *Pauletia longifolia* Bong., *Bauhinia geminata* Vogel, *Bauhinia obtusata* Vogel, *Bauhinia recurva* R.S.Cowan

Habit: treelet or shrub. Status: native.

Ref.: Vaz & Tozzi 2003b: 112.

**Bauhinia longipedicellata** Ducke (sect. *Pauletia*, ser. *Cansenia*)

Habit: treelet or shrub. Status: native.

Ref.: Vaz & Tozzi 2003b: 114.

*Bauhinia macrostachya* Benth. = **Bauhinia unguata** L. var. **unguata**

*Bauhinia macrostachya* Benth. var. *obtusifolia* Ducke = **Bauhinia unguata** L. var. **obtusifolia** (Ducke) Vaz

*Bauhinia macrostachya* Benth. var. *parvifolia* Ducke = **Bauhinia unguata** L. var. **parvifolia** (Ducke) Vaz

*Bauhinia macrostachya* Benth. var. *tenuifolia* Ducke = **Bauhinia unguata** L. var. **unguata**

**Bauhinia malacotricha** Harms (sect. *Pauletia*, ser. *Cansenia*)

Habit: shrub. Status: native.

Ref.: Vaz & Tozzi 2003b: 115.

**Bauhinia malacotrichoides** R.S.Cowan (sect. *Pauletia*, ser. *Cansenia*)

Habit: subshrub. Status: native.

Ref.: Vaz & Tozzi 2003b: 116.

**Bauhinia marginata** (Bong.) Steud. (sect. *Pauletia*, ser. *Pentandrae*)

Syn.: *Pauletia marginata* Bong.

Habit: shrub. Status: native.

Ref.: Vaz & Tozzi 2005: 488. Iconography: Bongard 1836: tab. 5, fig. 1 (leaf).

**Bauhinia membranacea** Benth. (sect. *Pauletia*, ser. *Cansenia*)

Habit: shrub. Status: native.

Ref.: Vaz & Tozzi 2003b: 116. Iconography: Vaz & Tozzi 2003b: fig. 5i.

**Bauhinia mollis** (Bong.) D.Dietr. var. **mollis** (sect. *Pauletia*, ser. *Aculeatae*)

Syn.: *Pauletia mollis* Bong., *Bauhinia corumbensis* S.Moore

Habit: treelet or shrub. Status: native.

Ref.: Vaz 2003: 74, Vaz & Tozzi 2005: 483. Iconography: Fortunato 1984: fig. 2.

*Bauhinia microphylla* Vogel = **Bauhinia bauhinioides** (Mart.) J.F.Macbr.

*Bauhinia obtusata* Vogel = **Bauhinia longifolia** (Bong.) Steud.

*Bauhinia odoratissima* Moric. = **Bauhinia integerrima** Mart. ex Benth.

**Bauhinia ovata** (Bong.) Vogel (sect. *Pauletia*, ser. *Aculeatae*)

Syn.: *Pauletia ovata* Bong.

Habit: treelet or shrub. Status: native.

Ref.: Vaz & Tozzi 2005: 484. Iconography: Bongard 1836: tab. 4, fig. 4, leaf (sub nom. *Pauletia ovata*).

*Bauhinia nitida* Benth. = **Bauhinia dubia** G.Don

**Bauhinia pentandra** (Bong.) D.Dietr. (sect. *Pauletia*, ser. *Pentandrae*)

Syn.: *Pauletia pentandra* Bong., *Bauhinia heterandra* Benth.

Habit: treelet or shrub. Status: native.

Ref.: Vaz 2003: 74, Vaz & Tozzi 2005: 488. Iconography: Vaz 2003: figs 4 & 5.

**Bauhinia pinheiroi** Wunderlin (sect. *Bauhinia*, ser. *Remotae*)

Habit: shrub. Status: native.

Ref.: Wunderlin et al. 1987: 89. Iconography: here, figs 1 & 2.

Note: *Bauhinia pinheiroi*, a rare species found exclusively in eastern Atlantic coastal forest (Bahia and Espirito Santo State), is here illustrated for the first time.

**Bauhinia platypetala** Burch. ex Benth. (sect. *Pauletia*, ser. *Aculeatae*)

Syn.: *Bauhinia forficata* Link var. *platypetala* (Burch. ex Benth.) Wunderlin, *Pauletia platypetala* (Burch. ex Benth.) A.Schmitz

Habit: treelet or shrub. Status: native.

Ref.: Vaz 2003: 80, Vaz & Tozzi 2005: 484.

**Bauhinia platyphylla** Benth. (sect. *Pauletia*, ser. *Cansenia*)

Habit: shrub or subshrub. Status: native.

Ref.: Vaz & Tozzi 2003b: 117.

*Bauhinia pruinosa* Vogel = **Bauhinia forficata** Link subsp. **pruinosa** (Vogel) Fortunato & Wunderlin

**Bauhinia pulchella** Benth. (sect. *Pauletia*, ser. *Cansenia*)

Syn.: *Bauhinia pulchella* Benth. var. *parvifolia* Benth.

Habit: treelet or shrub. Status: native.

Ref.: Vaz 2003: 84, Vaz & Tozzi 2003b: 118. Iconography: Bentham 1870: tab. 49.

*Bauhinia pulchella* Benth. var. *parvifolia* Benth. = **Bauhinia pulchella** Benth.

*Bauhinia recurva* R.S.Cowan = **Bauhinia longifolia** (Bong.) Steud.

**Bauhinia rufa** (Bong.) Steud. (sect. *Pauletia*, ser. *Cansenia*)

Syn.: *Bauhinia choriophylla* Vogel, *Bauhinia intermedia* Vogel, *Bauhinia rufa* (Bong.) Steud. var. *intermedia* (Vogel) Benth., *Pauletia rufa* Bong. var. *intermedia* (Vogel) A.Schmitz

Habit: treelet, subshrub or shrub. Status: native.

Ref.: Vaz & Tozzi 2003b: 120.

*Bauhinia rufa* (Bong.) Steud. var. *intermedia* (Vogel) Benth. = **Bauhinia rufa** (Bong.) Steud.

*Bauhinia sellowiana* Vogel = **Bauhinia fusconervis** (Bong.) Steud.

**Bauhinia smilacifolia** Burch. ex Benth. (sect. *Pauletia*, ser. *Cansenia*)

Habit: subshrub. Status: native.

Ref.: Vaz & Tozzi 2003b: 121.

*Bauhinia stenocardia* Standl. = **Bauhinia longicuspis** Spruce ex Benth.

*Bauhinia straussiana* Harms = **Bauhinia conwayi** Rusby

*Bauhinia subclavata* Benth. (sect. *Pauletia*, ser. *Cansenia*)  
Habit: shrub. Status: native.  
Ref.: Vaz & Tozzi 2003b: 122. Iconography: Vaz & Tozzi 2003b: fig. 5 (bud).

*Bauhinia tarapotensis* Benth. (sect. *Pauletia*, ser. *Ariaria*)  
Syn.: *Bauhinia amplifolia* Ducke  
Habit: tree, treelet or vine. Status: native.  
Ref.: Vaz & Tozzi 2005: 484. Iconography: Vaz & Tozzi 2005: fig. 2.

*Bauhinia tenella* Benth. (sect. *Pauletia*, ser. *Cansenia*)  
Habit: shrub or subshrub. Status: native.  
Ref.: Vaz & Tozzi 2003b: 123. Iconography: Vaz 2003: figs 6 & 7.

*Bauhinia tumupasensis* Rusby = *Bauhinia conwayi* Rusby  
*Bauhinia unguolata* L. var. *cuiabensis* (Bong.) Vaz (sect. *Pauletia*, ser. *Cansenia*)  
Syn.: *Bauhinia angulicaulis* Harms, *Bauhinia cujabensis* (Bong.) Steud. var. *ferruginea* Chodat & Hassl.  
Habit: subshrub, shrub or treelet. Status: native.  
Ref.: Vaz & Tozzi 2003b: 125.

*Bauhinia unguolata* L. var. *obtusifolia* (Ducke) Vaz (sect. *Pauletia*, ser. *Cansenia*)  
Syn.: *Bauhinia macrostachya* Benth. var. *obtusifolia* Ducke  
Habit: shrub. Status: native.  
Ref.: Vaz & Tozzi 2003b: 127.

*Bauhinia unguolata* L. var. *parvifolia* (Ducke) Vaz (sect. *Pauletia*, ser. *Cansenia*)  
Syn.: *Bauhinia macrostachya* Benth. var. *parvifolia* Ducke  
Habit: shrub or treelet. Status: native.  
Ref.: Vaz & Tozzi 2003b: 127.

*Bauhinia unguolata* L. var. *ungulata* (sect. *Pauletia*, ser. *Cansenia*)  
Syn.: *Cansenia unguolata* (L.) Raf., *Pauletia unguolata* (L.) A.Schmitz, *Bauhinia macrostachya* Benth., *Bauhinia macrostachya* Benth. var. *tenuifolia* Ducke  
Habit: shrub, tree or subshrub. Status: native.  
Ref.: Vaz & Tozzi 2003b: 124. Iconography: Vaz & Tozzi 2003b: figs 18 & 19.

*Bauhinia urocalyx* Harms (sect. *Pauletia*, ser. *Cansenia*)  
Habit: shrub. Status: native.  
Ref.: Vaz & Tozzi 2003b: 130.

*Bauhinia uruguayensis* Benth. (sect. *Benthamia*)  
Syn.: *Bauhinia guaranitica* Lindm., *Bauhinia venturii* Lillo, *Bauhinia hermesiana* N.F.Mattos, *Binaria uruguayensis* (Benth.) A.Schmitz  
Habit: tree. Status: native.  
Ref.: Fortunato 1986: 535, Bortoluzzi et al. 2006: 50. Iconography: Fortunato 1986: fig. 2, Fortunato 1986: 537, Bortoluzzi et al. 2006: fig. 8.

*Bauhinia vespertilio* S.Moore (sect. *Pauletia*, ser. *Pentandrae*)  
Syn.: *Pauletia hirsuta* Bong., *Bauhinia hirsuta* (Bong.) Vogel, *Bauhinia hirsutiflora* Vaz  
Habit: treelet or shrub. Status: native.  
Ref.: Vaz & Tozzi 2005: 489. Iconography: Vaz 2003: 3 (sub nom. *B. hirsutiflora*).

*Bauhinia venturii* Lillo = *Bauhinia uruguayensis* Benth.

*Bauhinia viridiflorens* Ducke = *Bauhinia dubia* G.Don

*Bauhinia viscidula* Harms = *Bauhinia dumosa* Benth. subsp. *viscidula* var. *viscidula* (Harms) Vaz & R.Marquete

## DISCUSSION

Lewis & Forest (2005) mentioned c. 150–160 species for the pantropical genus *Bauhinia*, most abundant in the Neotropics (c. 75 species in South America, c. 35 in North and Central America). Wunderlin et al. (1987) estimated that sect. *Pauletia* counts c. seventy species in tropical America and two species in the paleotropics.

Fifty-seven species of the genus *Bauhinia* s. str. native to Brazil are listed above, as well as two subspecies and seven arboreal or shrubby varieties plus one cultivated species – *B. acuminata*. Seventy published binomials are placed as synonyms. The 57 accepted species from Brazil belong to the following sections: 53 species in *B.* sect. *Pauletia* (Cav.) DC.; two species in *B.* sect. *Benthamia* Fortunato & Wunderlin; one species in *B.* sect. *Amara* (S.Mutis) Endlicher and one species in *B.* sect. *Bauhinia*. Brazilian species of *B.* sect. *Pauletia* were classified in the following series: ser. *Aculeatae* Vaz & A.M.G.Azevedo (nine species); ser. *Acuminatae* Wunderlin, K.Larsen & S.S.Larsen (one species, cultivated); ser. *Ariaria* (Cuervo-Marques) Wunderlin, K.Larsen & S.S.Larsen (one species); *B.* ser. *Cansenia* (Raf.) Wunderlin, K.Larsen & S.S.Larsen (36 species); ser. *Pentandrae* Wunderlin, K.Larsen & S.S.Larsen (six species); and ser. *Perlebia* (Mart.) Wunderlin, K.Larsen & S.S.Larsen (one species).

Brazil is thus the centre of diversity of section *Pauletia* and home of about a third of the world's species and 75% of the South American species of *Bauhinia*. However, a revision for neotropical *Bauhinia* is much needed and several new species have to be described.

## SUPPLEMENTARY DATA

Supplementary data are available at *Plant Ecology and evolution*, Supplementary Data Site (<http://www.ingentaconnect.com/content/botbel/plecevo/supp-data>), and consist of the following: (1) list of selected examined specimens (pdf format); (2) alphabetical index of examined specimens (pdf format).

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