



A Synopsis of *Sloanea* (Elaeocarpaceae) in the Neotropical extra-Amazonian Region

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ABSTRACT

The genus *Sloanea* is comprised of 150 species, of which about 50 occur in Brazil among several vegetation types but mainly the Amazon and Atlantic forests. The present work provides a synopsis of the Neotropical species of *Sloanea* in the extra-Amazonian region based on a recent revision of the genus. In general, morphologically *Sloanea* comprises large trees endowed with buttressed roots; simple leaves; flowers with sepals that may or may not cover the reproductive organs in pre-anthesis phases; stamens with the connective prolonged into an awn that is acuminate, acute or aristate and fruit covered with rigid or flexible bristles or sometimes unarmed. This synopsis describes 17 species, and provides an identification key, illustrations and comments on their diagnostic characters, geographical distribution and main bibliographic references.

Keywords: Atlantic Forest, Brazil, diversity, savanna, taxonomy

Introduction

Sloanea, the largest genus of the family Elaeocarpaceae, contains about 150 species distributed in Australia, Asia, Madagascar, South America, Central America and Mexico (Steyermark 1952; 1978; 1988; Smith 1954; 1965; 1967; 1996; Coode 1983; Palacios-Duque 2004; 2005; 2007; Palacios-Duque & Fernández-Alonso 2005; Sampaio & Souza 2010; 2011a; b; Boeira *et al.* 2012). In Brazil, the genus can be found throughout the country but particularly in more humid and preserved forest formations. The main contributions to the genus for the Neotropics were the taxonomic treatments published by Schumann (1886) and Smith (1954). The latter proposed the division of *Sloanea* into two subgenera and four sections (Subgenus *Sloanea*: Sections *Sloanea* and *Brevispicae*; Subgenus *Quadrisepala*: Sections *Paniculi* and *Corymbo-racemi*), based on the number

of sepals and the position of the calyx in the floral bud, the persistence of the stipules and the type and position of the inflorescence. In this work, the infra-generic classification proposed by Smith (1954) is recognized in part because we consider that the position of the calyx in relation to the bud is a good taxonomic character for the recognition of subgen. *Sloanea* (calyx not covering essential organs in the bud) and subgen. *Quadrisepala* (calyx covering the essential organs in the bud). The other characters used by Smith (1954) were not considered because of their overlapping distribution among the two subgenera and the four sections (Sampaio & Souza 2011a).

This synopsis is derived from a recent revision of the genus for the Neotropical extra-Amazon region (Sampaio 2009) and aims to contribute to the identification of recognized species by providing an identification key and diagnostic morphological characters, illustrations and current geographic distribution.

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Materials and methods

This work is the result of a review and analysis of collections and nomenclatural types available in 55 Brazilian and foreign herbaria cited throughout the paper, whose acronyms follow Holmgren & Holmgren (1998). Field expeditions were conducted in the following Brazilian states: Amazonas, Bahia, Espírito Santo, Goiás, Minas Gerais, Rio de Janeiro, Santa Catarina, São Paulo and Paraná. Collected material was deposited in the following herbaria: Escola Superior de Agricultura “Luiz de Queiroz”, University of São Paulo (ESA) and University of Campinas (UEC).

Dimensions of vegetative and reproductive structures presented in the descriptions were measured from dried herbarium material (except for floral structures, which were rehydrated prior to measurement). Information concerning habit, flower coloration and other floral structures were obtained from data provided in the labels of herbarium material and, when possible, from *in situ* observations.

The morphological terminology used for vegetative and reproductive structures was based on Smith (1954), which is the standard for the genus, and Radford *et al.* (1976). The venation pattern of leaves followed the classification of Hickey (1979), and the terminology used for inflorescences was adapted from Weberling (1989). Abbreviations for the works cited in this study were based on Stafleu & Cowan (1981), whereas those of authors of genera and species followed Brummitt & Powell (1992).

Results and discussion

Sloanea L., Sp. Pl. 1: 512, 1753

=*Ablania* Aublet, Pl. Guian.1: 585, tab. 234. 1775.

Trees or rarely shrubs. Trunk usually buttressed. Branchlet usually lenticellate. Leaves alternate, opposite or rarely whorled; stipules present, usually caducous; petioles incrassate at one or both ends, terete or canaliculate; leaf-blade with margin entire, crenate, serrate or dentate, with variable shape and size, venation brochidodromous, craspedodromous or eucamptodromous. Inflorescences axillary, rarely terminal, racemose or cymose, rarely solitary. Flowers bisexual; monochlamydeous or dichlamydeous; 4 – 11 sepals, equal or unequal, usually free, valvate; petals usually absent; circa 50 to more than 100 stamens; anthers basifixed, connective prolonged above the anther into an awn; ovary sessile or with stipe, 3 – 6 loculi; 8 – 10 ovules per locule; style entire or parted; floral receptacle convex. Fruit with loculicidal capsule, variable shape and size; 3 – 6 valves, woody, unarmed or armed with flexible or rigid bristles, straight or curved, firmly attached or easily detached, rarely irritant. Seeds 1 – many per capsule, covered up to the mid region or entirely by an aril.

According to Sampaio & Souza (2011a), the genus *Sloanea* can be recognized by the size of the tree (2 to 35

meters high), single leaves with swelling at both ends of the petiole, monochlamydeous flowers and fruits covered by flexible bristles. However, as exceptions, some species are of smaller adult size, such as *S. hirsuta*; have dichlamydeous flowers, such as *S. petalata*, or have glabrous and unarmed fruits, such as *S. floribunda*.

Neotropical species of the genus *Sloanea* are characterized by having simple leaves with alternate or opposite insertions, distributed along the branches or concentrated at the apex. In contrast, Coode (1983) noted that *Sloanea sogorensis*, an Old World species (New Guinea), has compound young leaves. Several juvenile individuals of species of *Sloanea* were observed during field expeditions for this work, but none exhibited compound leaves. Another important characteristic of *Sloanea sogorensis*, is the presence of a pair of stipules lateral to the petiole. In extra-Amazonian species the stipules may fall prematurely, and so these structures can be seen more easily in young branches. Some species have persistent stipules that remain until the maturation of the branches, but they soon fall (*S. garckeana*, *S. lasiocoma*, *S. hirsuta*, *S. pubescens*, *S. retusa*, *S. terniflora*, *S. hatschbachii*, *S. uniflora*, *S. filiformis* and *S. fasciculata*). In extra-Amazonian species stipules vary in size (from 1.5 – 9 mm length) and shape (lanceolate, filiform or ovate).

The most important diagnostic characteristics used to differentiate species of *Sloanea* are the type of inflorescence, the position of the sepals in the bud, the shape of the anther connective extension and, to a lesser extent, the arrangement and structure of the bristles on the capsule.

In the extra-Amazonian region, flowers of *Sloanea* are monochlamydeous with only the calyx present. They are formed by one or two whorls of sepals (*S. lasiocoma*) with variable shape and size. The presence of sepals covering (Fig. 1A) or not the reproductive organs in the bud (Fig. 1B) is another useful taxonomic character. Likewise, the anther connective extension is an important character and is used to circumscribe many species of the genus. In this work, the genus was divided into three informal groups (acuminate, aristate and acute) based on the length and shape of the anther connective extension (Fig. 2).

The acuminate extension of *S. guianensis*, *Sloanea hatschbachii*, *S. subsessilis* and *S. terniflora* is about 1 mm long, and emerges from the anther maintaining constant width towards the apex (Fig. 2A-D). In other species, the extension of the aristate connective varies between 2 and 4 mm in length and arises abruptly from the anther, tapering towards the apex. Among the species with these characteristics are: *S. garckeana*, *S. filiformis*, *S. floribunda*, *S. petalata* and *S. uniflora* (Fig. 2E-I). The acute connective extension is less than or equal to 0.5 mm in length in *S. eichleri*, *S. fasciculata*, *S. lasiocoma*, *S. hirsuta*, *S. obtusifolia* and *S. retusa* (Fig. 2J-O).

The gynoecium also possesses characters useful for the delimitation of species of *Sloanea* (Fig. 3). The shape, size and, especially, type of indument covering the ovaries are





Figure 1. (A) *S. lasiocoma* flower bud; (B) *S. eichleri* flower buds.

used to separate some groups of species: *S. garckeana* and *S. petalata*, for example, have the ovary covered with a long-velutinous indument with branched hairs (Fig. 3H-I). This type of indument does not occur in other species of the extra-Amazonian region, and although branched hairs are also common in *S. uniflora* and *S. terniflora*, the type of indument covering the ovaries in these species is of the short-pubescent type (Fig. 3G, J).

The style, whose length varies between 1.5 and 8 mm, is also important for circumscribing some species of *Sloanea*. *Sloanea eichleri*, *S. hatschbachii* and *S. filiformis*, for example, have styles of 6 to 8 mm, the largest among extra-Amazonian species (Fig. 3K, N-O). Styles can be straight or twisted; however, since this is a highly variable character, it was not used for diagnosing taxa. The apex of styles can be whole, divided only at the apex or entirely divided throughout their length. In some species (e.g., *S. floribunda*, *S. garckeana*, *S. petalata*, *S. terniflora* and *S. uniflora*) the apex of the style is always entire (Fig. 3A, G-J), while in *S. filiformis* the style is deeply divided (Fig. 3N).

The fruits of species of *Sloanea* are loculicidal, woody capsules covered by an indument, which varies widely, and ornamented with stiff or flexible bristles, or is unarmed. Although the fruits, in general, are not good diagnostic characters, they may help in the recognition of some species. For example, in *S. uniflora* the bristles overlaying fruits are variable in length and indument, and may be an irritant, whereas in other species, such as *S. floribunda*, bristles may be completely absent.

The 17 species of *Sloanea* occurring in the extra-Amazonian region presented below were studied in the PhD

thesis of the first author (Sampaio 2009). Of these, six were described as new by Sampaio & Souza (2010; 2011a; 2011b). Information concerning nomenclatural, relationships among taxa and geographical distribution was provided by Sampaio & Souza (2014). Headings containing nomenclatural types, original works, synonyms and basionyms, as well as descriptions for all species are provided below.

1. *Sloanea eichleri* K. Schumann, Fl. Bras. 12 (3): 183, pl. 38, Fig. 1. 1886. Lectotype (designated by Sampaio & Souza 2014: 122): BRAZIL. Rio Tocantins, no date, Weddel 2478 (P!, isoelectotype B barcode B 10 0249968!).

=*Sloanea obidensis* Ducke, Arch. Inst. Biol. Veg. Rio de Janeiro 2 (2): 160. 1935. Lectotype (designated by Sampaio & Souza 2014: 122): BRAZIL. Pará: Óbidos, 11 November, 1919, Ducke s.n. (RB12369 barcode 538366!, isoelectotype BM!).

Tree, 3–30 m in height. Leaves alternate to sub-opposite; stipules, ca. 2 x 1 mm, caducous; petioles 1.5–18 cm long; leaf blade 8.5–40 x 5.5–23 cm, elliptical or obovate, margin undulate or serrate, rarely entire. Inflorescence axillary or cauliflorous; thyrsoïd or botryoid; peduncle 2–6 cm long. Flowers with 7–9 sepals, 1–1.5 x ca. 1 mm, pubescent on both surfaces, triangular, uniseriate, entire, equal, apex acute, margin flat; sepals not covering the reproductive organs in the floral bud prior to anthesis; anthers 1–1.5 mm long, elliptical or lanceolate; connective prolonged into an acute awn less than 0.5 mm long; ovary ca. 2 mm long, pubescent, globose, sessile; style 6–8 mm long, twisted or straight, 4–parted at the apex. Fruits elliptical or globose; 4 valves, 1.5–2 x ca. 0.5 cm, covered by bristles 4–15 mm



Key to the species of *Sloanea* of the extra-Amazonian region

1. Inflorescence with peduncle up to 0.5 cm long 2
 1'. Inflorescence with peduncle more than 1 cm long 5
 2. Inflorescence fasciculate **2. *S. fasciculata***
 2'. Inflorescence bracteate, racemose 3
 3. Sepals with revolute margins and fully covering the reproductive organs in the bud prior to anthesis
 **8. *S. hirsuta***
 3'. Sepals with flat margins and not fully covering the reproductive organs in the bud prior to anthesis 4
 4. Style 2 – 2.5 mm long **11. *S. obtusifolia***
 4'. Style 6 – 8 mm long **10. *S. obtusa***
 5. Sepals with flat margins, not fully covering the reproductive organs in the floral bud prior to anthesis, inflorescence axillary or cauliflorous 6
 5'. Sepals with revolute margins, fully covering the reproductive organs in the bud prior to anthesis, inflorescence axillary or terminal 12
 6. Connective prolonged into an aristate awn **3. *S. filiformis***
 6'. Connective prolonged into an acuminate or acute awn 7
 7. Inflorescence bracteate, racemose 8
 7'. Inflorescence botryoid, or indeterminate thyrsoid 9
 8. Leaf blade 4.5 – 18 cm wide, abaxial surface puberulent to densely-pubescent, venation brochidodromous; peduncle of the inflorescence 2 – 5 cm long, ovary 2.5 – 3 mm long **13. *S. pubescens***
 8'. Leaf blade 2 – 3.7 cm wide, abaxial surface glabrous, venation predominantly craspedodromous; peduncle of the inflorescence 0.1 – 1.5 cm long, ovary 1 – 1.5 mm long **11. *S. obtusifolia***
 9. Connective prolonged into an acuminate awn **6. *S. guianensis***
 9'. Connective prolonged into an acute awn 10
 10. Leaf blade up to 3.7 cm wide, peduncle up to 1.5 cm long **11. *S. obtusifolia***
 10'. Leaf blade bigger than 5.5 cm wide, peduncle of the inflorescence bigger than 2 cm long 11
 11. Inflorescence thyrsoid; sepals triangular, 1 – 1.5 mm long; style 6 – 8 mm long; fruits 1.5 – 2 cm long
 **1. *S. eichleri***
 11'. Inflorescence botryoid; sepals ovate or lanceolate, 3 – 4 mm long; style 2.5 – 3 mm long; fruits longer than 2 cm ...
 **14. *S. retusa***
 12. Inflorescence triad 13
 12'. Inflorescence thyrsoid, or unifloral, or a frondose-bracteate raceme, or a bracteate raceme, or an indeterminate thyrsoid, or botryoid 15
 13. Petals present **12. *S. petalata***
 13'. Petals absent 14
 14. Connective prolonged into an aristate awn 2 – 4 mm long; style 3 – 5 mm long; ovary with longvelutinous indument
 **5. *S. garckeana***
 14'. Connective prolonged into an acuminate awn ca. 1 mm long; style ca. 1.5 mm long; ovary with pubescent indument
 **16. *S. terniflora***
 15. Inflorescence unifloral or thyrsoid 16
 15'. Inflorescence a frondose-bracteate raceme, a bracteate raceme, an indeterminate thyrsoid or botryoid
 17
 16. Inflorescence unifloral, ovary sessile covered by branched trichomes **17. *S. uniflora***
 16'. Inflorescence thyrsoid, ovary stipitate or sub-stipitate, covered by simple trichomes
 **4. *S. floribunda***
 17. Inflorescence frondose-bracteate raceme, bracteate raceme, or indeterminate thyrsoid 18
 17'. Inflorescence botryoid **15. *S. subsessilis***
 18. Connective prolonged into an acuminate awn, style around 7 mm long
 **7. *S. hatschbachii***
 18'. Connective prolonged into an acute awn, style up to 4 mm long 19
 19. Peduncle of the inflorescence 1 – 4.5 cm long; 4 – 6 (rarely 8) sepals; style 2.5 – 4 mm long; inflorescence a bracteate raceme, frondose-bracteate raceme or indeterminate thyrsoid **9. *S. lasiocoma***
 19'. Peduncle of the inflorescence 0.2 – 1 cm long, 4 (rarely 6) sepals; style 1.5 – 2.5 mm long; inflorescence a bracteate raceme **8. *S. hirsuta***



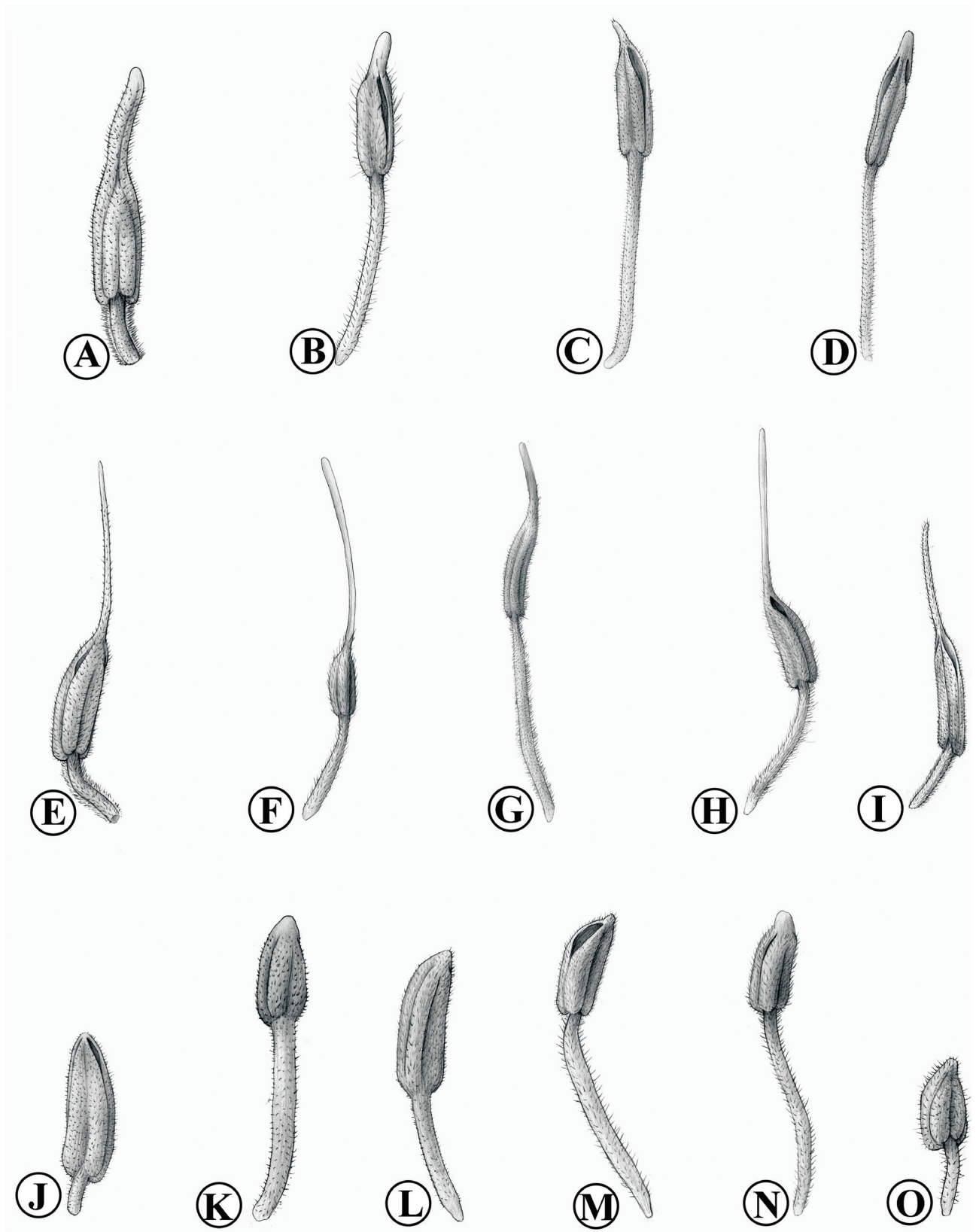


Figure 2. Details of the stamens of extra-Amazonian species of *Sloanea*. (A-D) Connective prolonged into an acuminate awn. (A) *S. terniflora*; (B) *S. guianensis*; (C) *S. hatschbachii*; (D) *S. subsessilis*. (E-I) Connective prolonged into an aristate awn. (E) *S. garckeana*; (F) *S. filiformis*; (G) *S. uniflora*; (H) *S. petalata*; (I) *S. floribunda*. (J-O) Connective prolonged into an acute awn. (J) *S. hirsuta*; (K) *S. fasciculata*; (L) *S. lasiocoma*; (M) *S. retusa*; (N) *S. eichleri*; (O) *S. obtusifolia*.



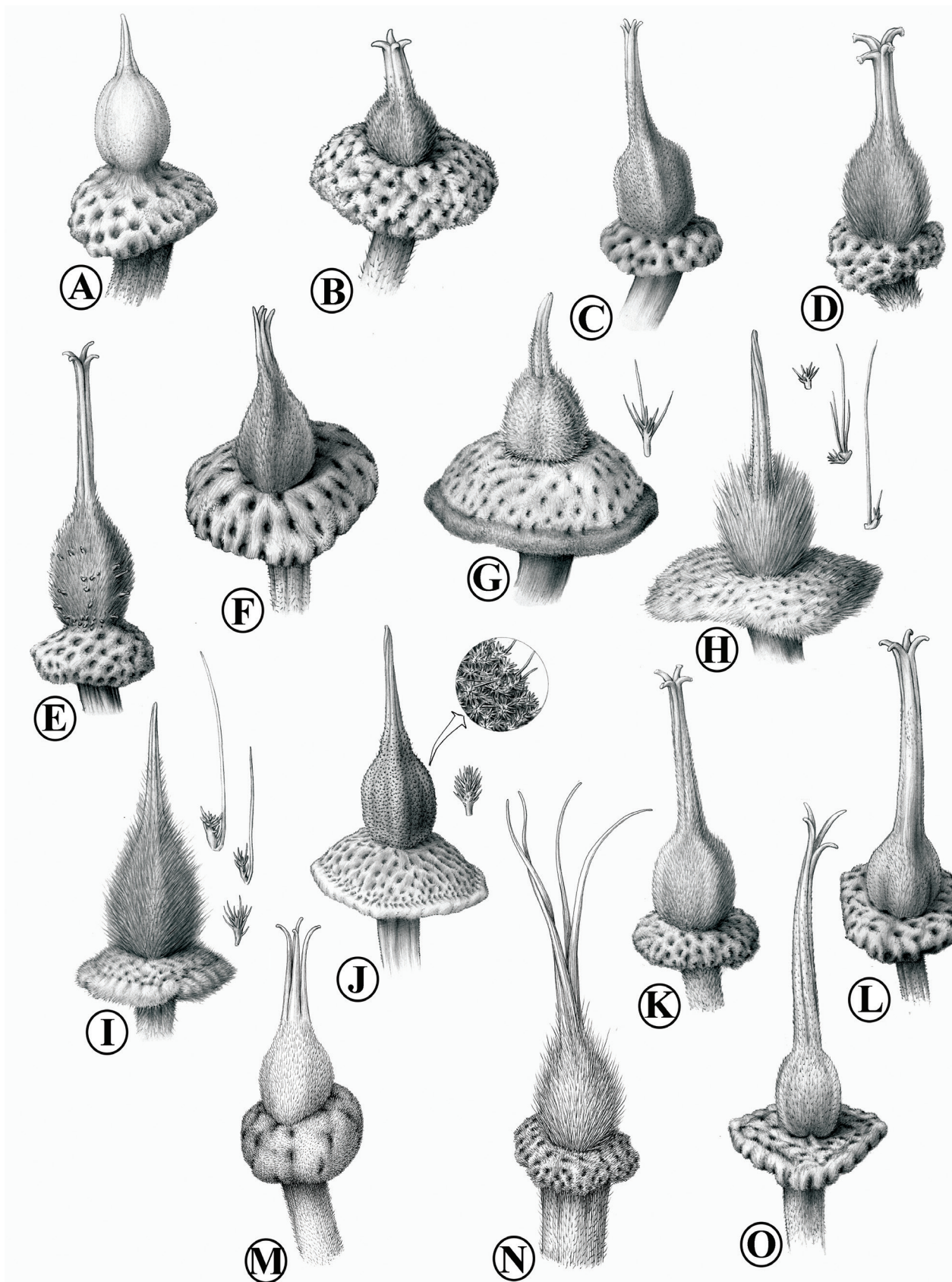


Figure 3. Details of the ovaries of extra-Amazonian species of *Sloanea*. (A) *S. floribunda*; (B) *S. obtusifolia*; (C) *S. lasiocoma*; (D) *S. retusa*; (E) *S. guianensis*; (F) *S. hirsuta*; (G) *S. terniflora*; (H) *S. garckeana*; (I) *S. petalata*; (J) *S. uniflora*; (K) *S. eichleri*; (L) *S. subsessilis*; (M) *S. fasciculata* (N) *S. filiformis*; (O) *S. hatschbachii*.

long. Seeds 1, ca. 5 x 3 mm, elliptical, aril not visible.

Geographical distribution: In the extra-Amazonian region this species is found in the Brazilian states of Espírito Santo, Goiás, Mato Grosso and Rio de Janeiro. This species can be seen in Atlantic Forest and gallery forest.

2. *Sloanea fasciculata* D. Sampaio & V.C. Souza, Kew Bulletin 66 (4): 512. 2011. Type: Brazil, Espírito Santo, Santa Teresa, L. Kollmann 2166 (holotype ESA!, isotype MBML!).

Tree, 2 – 9 m in height. Leaves alternate, sub-opposite; stipules persistent, 4 – 5 x 0.5 mm; petioles 0.5 – 1.4 cm long; leaf-blade 3 – 7.3 x 1.5 – 3.5 cm, elliptical or lanceolate, margin entire. Inflorescences axillary or terminal; fasciculate, sessile or peduncle up to 0.5 mm. Flowers with 4 sepals, 3 – 3.5 x 1 – 1.5 mm, sparsely-pubescent on both surfaces, ovate or lanceolate, uniseriate, entire, equal, apex acute or acuminate, margin planar and white-tomentose on the inner face; sepals covering the reproductive organs in the floral bud near anthesis; anthers ca. 0.5 – 1 mm long, elliptical or globose; connective prolonged into an acute awn less than 0.5 mm long; ovary ca 1 – 1.5 mm long, white tomentose, ovate, sessile; style ca 2 – 2.5 mm long, straight, 3 – 4 –divided to the base. Fruits ellipsoid; 4 – 5 valves, 2 – 3 x 0.5 – 0.7 cm, covered by bristles 2 – 3 mm long. Seeds 1, ca. 10 x ca. 5 mm, elliptical, aril not visible.

Geographical distribution: *S. fasciculata* is an endemic to Brazil and was previously known only from the municipality of Santa Teresa, Espírito Santo State. However, new collections of this species were made in Bahia State. *Sloanea fasciculata* occurs in the highlands of the Atlantic Forest.

3. *Sloanea filiformis* D. Sampaio & V.C. Souza, Phytotaxa 16: 45. 2011. Type: BRAZIL. Bahia: Barreiras, margin of the Rio de Janeiro, gallery forest, 2 November 1987, Queiros 2105 (holotype UEC!, isotypes HUEFS!, K!).

Tree, 4 – 5 m in height. Leaves alternate to subopposite; stipules persistent, ca. 5 x 2 – 3 mm; petioles 1 – 6 cm long; leaf blade 8 – 20 x 5.5 – 12 cm, elliptical or obovate, margin finely serrate. Inflorescences axillary or cauliflorous; botryoid; peduncle 1 – 2.5 cm long. Flowers with 6 – 8 sepals, 3 – 4 x ca. 1 mm, densely rufous-pubescent on both surfaces, lanceolate, uniseriate, variable in size and shape, apex acuminate, margin planar; not covering the reproductive organs in the floral bud near anthesis; anthers ca. 1 – 1.5 mm long, elliptical or ovate; connective prolonged into a long aristate awn 3 – 3.5 mm long; ovary ca. 2 mm long, rufous-tomentose, elliptical, sessile; style ca. 4–6 mm long, deeply 4 – divided to the base. Fruits elliptical; 4 valves, 1.5 – 3 x 0.4 – 0.5 cm, covered by bristles 3 – 4 mm long. Seeds 1, ca. 20 x ca. 7 mm, elliptical, aril red or orange.

Geographical distribution: *Sloanea filiformis* occurs in the Brazilian states of Bahia and Mato Grosso, in gallery forest.

4. *Sloanea floribunda* Spruce ex Bentham, J. Proc. Linn. Soc., Bot. 5 (suppl.2): 66. 1861. Lectotype (designated by Sampaio & Souza 2014: 122): BRAZIL. San Carlos, Rio

Negro, 1853–54, *Spruce 3680* (K barcode 000381954! [Herb. Benth.], isolectotypes BR barcode BR0000006995607!, F barcode V0074597F!, GH barcode 00052202!, K barcode 000381955!, NY barcode 00415327!, P!, RB barcode 00538347!, W barcode 0006499!).

=*Sloanea longipes* Ducke, Arch. Inst. Biol. Veg. Rio de Janeiro 2 (2): 166. 1935. Lectotype (designated by Sampaio & Souza 2014: 122): BRAZIL. Pará, Rio Macujubim, 9 July 1923, *Ducke s.n.*, (RB 18379 barcode 00542295!, isolectotypes K!, P!, S!, US barcode 00098572!).

=*Sloanea maroana* Steyermark, Pittieria 7: 14. 1978. Type: VENEZUELA. Territorio Federal Amazonas, 20 April 1970, *Steyermark and Bunting102799* (holotype VEN).

Tree, 8 – 35 m in height. Leaves alternate; stipules early deciduous, not observed; petioles 1.2 – 6 cm long; leaf blade 7.5 – 20 (–23) x 3.2 – 7 cm, obovate, rarely lanceolate, margin entire. Inflorescence axillary or terminal; thyrsoid; peduncle 3 – 7 cm long. Flowers with 4 sepals, 7 – 12 x 3 – 5 mm, ovate, rarely lanceolate, uniseriate, entire, equal, apex acuminate; margin revolute and tomentose on the inner surface; covering the reproductive organs in the floral bud near anthesis; anthers 2 – 4 mm long, elliptical or lanceolate; connective prolonged into a long aristate awn 2 – 3 mm long; ovary 2 – 4 mm long, short-pubescent, with simple trichomes, globose, stipitate or sub-stipitate, stipe ca. 1 mm long; style 2 – 4.5 mm long, straight or twisted, apex entire. Fruits globose; 4 valves, 2 – 3 x 1 – 1.3 cm, unarmed. Seeds 1, 10 – 15 x 5 – 7 mm, aril white in *Ducke 1154*.

Geographical distribution: *Sloanea floribunda* occurs in gallery forests in Mato Grosso State.

5. *Sloanea garckeana* K. Schumann, Fl. Bras. 12 (3): 177, pl. 36. 1886. Lectotype (designated by Sampaio & Souza 2014: 123): BRAZIL. Rio de Janeiro, *Riedel 888* (K barcode 000382010!, isolectotypes BR barcode BR0000006994969!, L!, M!, P!, W barcode 0003026!, WU barcode 0040322!).

Tree, 2 – 13 m in height. Leaves alternate to sub-opposite; stipules persistent in young branches, 4 – 8 x ca. 1 mm; petioles 5 – 35 mm long; leaf blade 5.2 – 17 x 2.3 – 5.4 mm, obovate to oblanceolate, margin entire, undulate, rarely serrate in the first upper third of blade. Inflorescences axillary or terminal; triad; peduncle 1 – 7 cm long. Flowers with 4 sepals, 5 – 12 x 3 – 7 mm, pubescent on both surfaces, ovate, uniseriate, entire, equal, apex acuminate, margin revolute; sepals covering the reproductive organs in the floral bud near anthesis; anthers 2 – 3 mm long, elliptical or lanceolate; connective prolonged into an aristate awn 2 – 4 mm long; ovary 3 – 4 mm long, long-velutinous with branched trichomes, globose, sessile; style 3 – 5 mm long, twisted, apex entire. Fruits elliptical or globose; 4 valves 1.5 – 2.8 x 0.5 – 1.3 cm, covered by bristles 3 – 5 mm long. Seeds 1, 13 – 18 x 6 – 10 mm, elliptical, aril red.

Geographical distribution: *Sloanea garckeana* has been found in areas of Atlantic Forest and gallery forest in almost all Brazilian states except in Rio Grande do Sul.



6. *Sloanea guianensis* (Aublet) Benth. Proc. Linn. Soc., Bot. 5 (suppl. 2): 69. 1861. *Ablania guianensis* Aublet, Hist. Pl. Guiane 1: 585, t. 234. 1775. Lectotype (designated by Sampaio & Souza 2014: 123): FRENCH GUIANA. Habitat in sylvis “Sinemariantibus”, no date, *Aublet s.n.* (BM barcode 000795143!).

=*Dasyneuma pubescens* Schott, Syst. Veg. 4: Cur. Post. 408. 1827. Type: Onsite, unknown collector (holotype W barcode 0016332!).

=*Sloanea alnifolia* Martius, Flora 20 (2) Beibl. 94. 1837. *Dasyneuma alnifolium* (Martius) Walpers, Repert. Bot. Syst. 1: 352. 1842. Lectotype (designated by Sampaio & Souza 2014: 123): BRAZIL. Rio de Janeiro: Copacabana, December 1853, *Martti Herb. Fl. Br 87* (BR barcode BR0000006995294!, isolectotype M!).

=*Sloanea cuneifolia* Martius, Flora 20 (2) Beibl. 94. 1837. *Dasyneuma cuneifolium* (Martius) Walpers, Repert. Bot. Syst. 1: 352. 1842. Type: BRAZIL. Amazonas. (holotype M!).

=*Sloanea microcarpa* Planchon ex Benth. Proc. Linn. Soc., Bot. 5 (suppl.2): 69. 1861. *Sloanea guianensis* var. *microcarpa* (Planchon ex Benth.) Schumann, Fl. Bras. 12 (3): 191. 1886. Type: VENEZUELA. Cayenne, *Martin s.n.* (holotype K! [Herb. Hook.]).

=*Sloanea alnifolia* var. *lancea* K. Schumann, Fl. Bras. 12 (3): 194. 1886. Lectotype (designated by Sampaio & Souza 2014: 124): BRAZIL. Rio de Janeiro: September, 1832, *Riedel 887* (BR barcode BR0000006995287!, isolectotypes K barcode 000381907!, M!, P!, S!, W barcode 0003024!).

=*Sloanea alnifolia* var. *ovalis* K. Schumann, Fl. Bras. 12 (3): 194. 1886. Lectotype (designated by Sampaio & Souza 2014: 124): BRAZIL. São Paulo: Santos, *Mosén 2785* (S 07-12928!, isolectotype S!).

=*Sloanea maximowicziana* K. Schumann, Fl. Bras. 12 (3): 192. 1886. Lectotype (designated by Sampaio & Souza 2014: 124): BRAZIL. Una, 1821, *Riedel 194* (W barcode 0050844!).

=*Sloanea breviseta* Steyermark, Fieldiana: Bot. 28: 357. 1952. Type: VENEZUELA. 19 April, 1945, *Steyermark 62215* (holotype F barcode V0074602F!, isotypes NY barcode 00415315!, US barcode 00098544!).

Tree, 4 – 25 m in height. Leaves alternate, sub-opposite or rarely alternate; stipules early deciduous, 1.5 – 3 x 0.5 – 1 mm; petioles 1.5 – 7 cm long; leaf blade (–2.5) 3.5 – 28 (–31) x 3.5 – 11 cm, obovate, rarely oblanceolate, margin entire, undulate or serrate. Inflorescences axillary or cauliflorous; botryoid; peduncle 1 – 6 cm long. Flowers with 6 – 9 (–4) sepals, 1.5 – 5 x 0.5 – 2.5 mm, pubescent on both surfaces, ovate or lanceolate, uniseriate, indented, unequal, apex acute or acuminate, margin planar; sepals not covering the reproductive organs in the floral bud near anthesis; anthers 1 – 2.5 mm long, elliptical or lanceolate; connective prolonged into an acuminate awn ca. 1 mm long; ovary 2 – 3 mm long, pubescent, globose or elliptical, sessile to stipitate, stipe 0.5 – 1 mm long; style 3 – 7 mm long, twisted or straight, 4 – parted near the apex. Fruits globose or elliptical; 4 valves 1 – 1.7 x 0.5 – 1 cm, covered by bristles 5 – 20 mm long. Seeds 1 – many, elliptical, laminar or angular, 2 – 10

x 0.5 – 5 mm, aril red or orange.

Geographical distribution: *S. guianensis* occurs in all extra-Amazonian region, in the Atlantic Forest and gallery forests.

7. *Sloanea hatschbachii* D. Sampaio & V.C. Souza. Kew Bulletin 66 (4): 512. 2011. Type: Brazil, Paraná, Paranaguá, G. Hatschbach 20091 (holotype MBM!).

Tree, 2.5 – 4 m in height. Leaves opposite to alternate; stipules persistent in the young branches, ca. 3 x ca. 0.5 mm; petioles 0.4 – 1 cm long; leaf-blade 3 – 5.7 x 1.4 – 3.4 cm, elliptical to obovate, margin entire. Inflorescences axillary or terminal; bracteate racemose or frondose-bracteate racemose; peduncle 1.5 – 4 cm long. Flowers with 4 sepals, 7 – 10 x 3 – 5 mm, pubescent on outer surface, densely pubescent on inner surface, ovate, uniseriate, entire, equal, apex acute or acuminate, margin finely revolute and white-tomentose on inner surface; sepals covering the reproductive organs in the floral bud near anthesis; anthers 2 – 3 mm long, lanceolate; connective prolonged into an acuminate awn ca. 0.5 mm long; ovary ca 3 mm long, pubescent, orbicular, sessile; style ca. 7 mm long, straight, 4 – divided at the apex. Fruits globose; valves 4, 1.5 – 2 x 0.7 – 1 cm, covered by bristles ca. 5 mm long. Seeds not seen.

Geographical distribution: *Sloanea hatschbachii* is endemic to Brazilian Atlantic Forest. It is known only from the type locality in the municipality of Paranaguá in the state of Paraná.

8. *Sloanea hirsuta* (Schott) Planch. ex Benth. Proc. Linn. Soc., Bot. 5 (suppl.2): 70. 1861. *Dasyneuma hirsutum* Schott, Syst. Veg. 4: Cur. Post. 408. 1827. Type: BRAZIL. Rio de Janeiro: Tijuca, *Gardner 5374* (holotype K! [Herb. Benth.], isotypes K [Herb. Hook.], W barcode 0005525!).

=*Sloanea monosperma* Vellozo, Fl. Flumin. 225. 1829 (1825). Lectotype (designated by Sampaio & Souza 2014: 125): BRAZIL. Rio de Janeiro: “Habitat silvis maritimis Regii Praedii Sanctae Crucis” (no existing specimen), Vellozo, Flora Fluminensis, ic. 5: Fig. 100. 1831 (1827).

=*Adenobasium salicifolium* Presl, Symb. Bot. 1 (3): 40, t. 27. 1832. *Dasyneuma salicifolium* (Presl.) Endlicher ex Walpers, Repert. Bot. Syst. 1(2): 352. 1842. Type: “America Meridionali”, J. S. Presl Herb., collector not indicated (holotype PR!).

=*Dasyneuma riparia* Gardner, Lond. London J. Bot. 2: 334. 1843. *Sloanea riparia* (Gardner) Planchon ex Benth. Proc. Linn. Soc., Bot. 5 (suppl.2): 70. 1861. Type: BRAZIL. Rio de Janeiro: Serra dos Órgãos, *Gardner 327* (holotype K! [Herb. Hook.], isotypes G!, K!, NY barcode 00415217!, P!, S!, W barcode 0016333!).

=*Sloanea pulverulenta* Radlkofer, Sitzungsber. Math.–Phys. Akad. Muench. 12: 329. 1882. *Sloanea monosperma* var. *pulverulenta* (Radlkofer) K. Schumann, Fl. Bras. 12 (3): 186. 1886. Type: BRAZIL. Rio de Janeiro: Corcovado, *Martius s.n.* (holotype M!).

=*Sloanea monosperma* var. *hirsutissima* K. Schumann, Fl.



Bras. 12 (3): 186. 1886. Lectotype (designated by Sampaio & Souza 2014: 125): BRAZIL. *Martii Herb. Fl. Bras. 831ex p.* (*Heb. Brux.*) (BR!).

=*Sloanea monosperma* var. *virgata* K. Schumann, Fl. Bras. 12 (3): 186. 1886. Lectotype (designated by Sampaio & Souza 2014: 125): BRAZIL. Rio de Janeiro, *Riedel 368 a* (BR barcode BR0000006997571!, isoelectotypes K barcode 000382006!, M!, P!).

=*Sloanea monosperma* var. *ovalis* K. Schumann, Fl. Bras. 12 (3): 186. 1886. Lectotype (designated by Sampaio & Souza 2014: 125): BRAZIL. São Paulo: Santos, *Mosén 2784* (S!).

Tree, 1.5 – 20 m in height. Leaves alternate to opposite; stipules persistent in the young branches, 2 – 7 x 0.5 – 1 mm; petioles 0.5 – 3 cm long; leaf blade (–1) 5 – 12 (–16,5) x (–1.3) 2 – 5 cm, obovate, oblanceolate, rarely elliptical, margin entire or serrate in the first upper third of blade. Inflorescences axillary; bracteate racemose; peduncle 0.2 – 1 cm long. Flowers with 4 (–6) sepals, 3 – 5 x 2 – 4 mm, pubescent on both surfaces, ovate, rarely lanceolate, uniseriate, equal, entire, apex acute or acuminate, margin finely revolute and white-tomentose on inner surface; sepals covering the reproductive organs in the floral bud near anthesis; anthers 1.5 – 2.5 mm long, elliptical; connective prolonged into an acute awn less than 0.5 mm long; ovary 1.5 – 3 mm long, pubescent, globose, sessile; style 1.5 – 2.5 mm long, twisted or straight, 4 – 5 (–3) parted at the apex or deeply parted up to the base. Fruits elliptical; 4 valves, rarely 3–5, 1.5 – 3.5 x 0.4 – 1.3 cm, covered by bristles 1 – 4 mm long. Seeds 1, elliptical or obovate, 6 – 15 x 4 – 5 mm, aril orange or red.

Geographical distribution: *Sloanea hirsuta* occurs only in the Atlantic Forest from Santa Catarina State to Bahia State.

9. *Sloanea lasiocoma* Schumann, Fl. Bras. 12 (3): 184. 1886. Lectotype (designated by Keller *et al.* 2012: 158): BRAZIL. Minas Gerais: Caldas, Pedro Branco, *Regnell III 1536* (S07–12933!, isoelectotypes BR barcode BR0000006994921!, K barcode 000381995!, M!, NY barcode 00415334!, P!).

=*Sloanea monosperma* var. *coriacea* Schumann, Fl. Bras. 12 (3): 186. 1886. Lectotype (designated by Keller *et al.* 2012: 158):—BRAZIL. Location not indicated, *Sello s.n.* [233?]: (S!, isoelectotypes F barcode V0055207F!, P!).

Tree, 5 – 26 m in height. Leaves alternate, sub-opposite and whorled at the apex of the branches; stipules persistent or deciduous, 2 – 4 x ca. 0.5 mm; petioles (–0.4) 1 – 3.2 cm long; leaf blade 2.3 – 15 x 0.8 – 5 cm, obovate, oblanceolate, elliptical or narrow elliptical, margin entire. Inflorescences axillary or terminal; bracteate racemose or frondose-bracteate racemose or indeterminate thyrses; peduncle 1 – 4.5 cm long. Flowers with 4 – 6 (–8) sepals, 3 – 5 x 2 – 4 mm, puberulous to pubescent on both surfaces, ovate or lanceolate, uniseriate or biseriate, equal, entire, apex acuminate, margin revolute; sepals covering the reproductive organs in the floral bud near anthesis; anthers 2 – 3 mm long, elliptical; connective

prolonged into an acute awn ca. 0.5 mm long; ovary 1.5 – 2 mm long, densely pubescent, ovate, sessile; style 2.5 – 4 mm long, twisted or straight, 4 – parted at the apex or 4 – deeply parted up to the base. Fruits elliptical or globose; 3 – 4 valves, 1 – 2 x 0.5 – 1 cm, covered by bristles, generally deciduous, 1.5 – 8 mm long. Seeds 1, elliptical or obovate, 8 – 10 x ca. 5 mm, aril orange or vinaceous.

Geographical distribution: *Sloanea lasiocoma* occurs in Brazil and Argentina. In Brazil, the species has been collected in the Atlantic Forest in the states of Rio Grande do Sul, Santa Catarina, Paraná, São Paulo and southern Minas Gerais states and a few isolated points in Goiás State. In Argentina, it was collected in the province of Misiones, in a fragment of native forest.

10. *Sloanea obtusa* (Splitgerber) K. Schumann, Fl. Bras. 12 (3): 181. 1886. *Dasymena obtusum* Splitgerber, Tijdschr. Nat. Geschied. 9: 98. 1842. Type: SURINAME. Post Belair: April, 1838, *Splitgerber 812* (holotype L!).

=*Sloanea kappleriana* Pulle, Enum. Vasc. Pl. Surinam 279. t. 12. 1906. Lectotype (designated by Sampaio & Souza 2014: 126): SURINAME. *Kappler 2036* (U!, isoelectotypes L!, P!, W barcode 0016324!).

Tree, 6 – 20 m in height. Leaves opposite to sub-opposite, rarely alternate; stipules deciduous, not observed; petioles 0.8 – 2.5 cm long; leaf-blade 6 – 14 x 2.5 – 7 cm, obovate, margin serrate or crenate. Inflorescences axillary; bracteate racemose; peduncle 0.1 – 0.5 cm length. Flowers with 4 – 5 sepals, 1 – 2 x ca. 1 mm, pubescent ferruginous on both surfaces, ovate, uniseriate, entire or rarely indented, equal, apex acute, margin planar; sepals not covering the reproductive organs in the floral bud near anthesis; anthers ca. 1 mm long, ovate; connective prolonged into an acute awn less than 0.5 mm long; ovary ca. 2 mm long, densely pubescent ferruginous, elliptical, sessile; style 6 – 8 mm long, straight or twisted, 4 – divided at the apex. Fruits elliptical, rarely globose; 4 valves, 1 – 2.2 x 0.5 – 0.7 cm, covered by bristles, 15 – 20 mm long. Seeds not seen.

Geographical distribution: *Sloanea obtusa* occurs in gallery forests in the Brazilian states of Ceará, Mato Grosso and Mato Grosso do Sul.

11. *Sloanea obtusifolia* (Morici.) K. Schum., Fl. Bras. 12 (3):181. 1886. *Adenobasium obtusifolium* Morici., Pl. Nouv. Amer. 83, t. 55. 1840. Type: Brasil. Bahia: *Blanchet 1659* (holotype: P!; isotype: K!).

=*Sloanea fernando-costae* Hoehne, Arq. Bot. Estado São Paulo 1: 93, t. 96. 1942. Tipo: Brasil. São Paulo: Jardim Botânico de São Paulo, 21 de Agosto de 1933, SP 30.844, *Oswaldo Handro s.n.* (holotype: SP!; isotype: GH!, K!, RB!).

Tree, 19 – 35 m in height. Leaves alternate; stipules early deciduous, 3 – 5 x 1 – 1.5 mm; petioles 0.4 – 1.5 cm long; leaf blade 3.3 – 9 x 2 – 3.7 cm, obovate, rarely elliptical, margin entire, undulate, rarely serrate. Inflorescences axillary or cauliflorous; bracteate racemose or indeterminate



thyrse; peduncle 0.1 – 1.5 cm long. Flowers with 4–5 (–8) sepals, 2 – 3 x 1 – 2 mm, pubescent on both surfaces, ovate, uniseriate or biseriate, entire or indented, equal or unequal, apex acuminate, margin planar; sepals not covering the reproductive organs in the floral bud near anthesis; anthers ca. 1 mm long, ovate or globose; connective prolonged into an acute awn ca. 0.5 mm long; ovary 1 – 1.5 mm long, densely pubescent, globose, sessile; style 2 – 2.5 mm long, straight, 4 – 5 – parted at the apex. Fruits elliptical; 3 – 4 valves, 2 – 3 x 0.7 – 1.2 cm, covered by bristles, generally deciduous, 4 – 10 mm long. Seeds 1, elliptical, ca. 15 x ca. 7 mm, aril orange.

Geographical distribution: *Sloanea obtusifolia* occurs in Atlantic Forest in the Brazilian states of Pernambuco to São Paulo.

12. *Sloanea petalata* D. Sampaio & V.C. Souza, Rodriguesia 61 (1):13. 2010. Type: BRAZIL. SÃO PAULO: Rodovia Campinas–Mogi Mirim, Auto Posto Varanda, 12.XII.1980, H.Leitão-Filho 12087 (holotype UEC!; isotype RB!).

Trees, 10 – 15 m in height. Leaves alternate; stipules early deciduous, 6 – 9 x ca. 1 mm; petioles 0.9 – 1.3 cm long; leaf blade 7 – 13 x 3.5 – 6 cm, obovate, margin entire or serrate on the first upper third of blade. Inflorescence axillary; triad; peduncle 1.5 – 4.5 cm long. Flowers with 4 – sepals, 11 – 15 x 3 – 4 mm, pubescent on both surfaces, ovate, uniseriate, entire, apex acuminate, margin revolute; 4 petals, 7 – 13 x ca. 1 mm, pubescent on both surfaces, lanceolate, uniseriate, entire, apex acuminate, margin revolute; petals covering the reproductive organs in the floral bud near anthesis; anthers ca. 2 mm long, elliptical; connective prolonged into an aristate awn 3 – 4 mm long; ovary ca. 6 mm long, velutinous, with branched trichomes, globose, sessile; style ca. 5 mm long, straight or twisted, apex entire. Fruits orbicular; 2 – 3 x 0.7 – 1.3 cm, 4 – 5 valves, covered by bristles 2 – 4 mm long. Seeds not seen.

Geographical distribution: *Sloanea petalata* is known only from the type locality, the city of Mogi Guaçu in the state of São Paulo, in an area with predominantly of Cerrado vegetation.

13. *Sloanea pubescens* Benthams, J. Proc. Linn. Soc., Bot. 5 (suppl.2): 69. 1861. *Dasynema pubescens* Poeppig and Endlicher (1845: 74)—*nom. illeg.*, non Schott (1827). Lectotype (designated by Sampaio & Souza 2014: 127): BRAZIL. Amazonas: Ega, Poeppig 2662 (W barcode 0016318!, isolectotypes W barcode 0016320!, GH barcode 00052220!, F barcode V0074610F!).

=*Sloanea gracilis* Uittien, Recueil Trav. Bot. Néerl. 22: 356. 1925. Type: SURINAME. Brownsberg, Bureau Forest, Herb. Numb. 6226. (holotype U!, isotypes K!, L!, RB barcode 00538348!, U!, US!).

=*Sloanea xylocarpa* Rusby, Mem. New York Bot. Gard. 7: 294. 1927. Type: BOLIVIA. Tumpassa: M. Cardenas 1979 (holotype NY barcode 00415363!, isotypes K!, US barcode 00098605!, GH barcode 00052230!).

=*Sloanea pseudodontata* Ducke, Arq. Inst. Biol. Veg. 2 (2): 159. 1935. Lectotype (designated by Sampaio & Souza 2014: 127): BRAZIL. Pará: Rio Tapajós, Ducke s.n. (RB 18378 barcode 00538376!, isolectotype K barcode 000381969!).

Tree, 2 – 22 m in height. Leaves alternate to sub-opposite; stipules persistent, 5 – 6 x ca. 1 mm; petioles 1.5 – 4 cm long; leaf blade 7.5 – 31 x 4.5 – 18 cm, obovate or elliptical, margin entire or undulate. Inflorescences axillary or cauliflorous; bracteate racemose; peduncle 2 – 5 cm long. Flowers with 4 – 6 sepals, 3 – 6 x 1 – 2 mm, pubescent on both surfaces, ovate or lanceolate, uniseriate, unequal, indented, apex acuminate, margin planar; sepals not covering the reproductive organs in the floral bud near anthesis; anthers 1 – 1.5 mm long, elliptical, theca velutinous; connective prolonged into an acuminate awn 0.5 – 1 mm long; ovary 2.5 – 3 mm long, globose, sessile; style 3 – 4 mm long, twisted or straight, 4 – parted at the apex. Fruits globose or ovate; 3 – 4 valves, 1.5 – 2 x ca. 1 cm, covered by bristles 15 – 25 mm long. Seeds 1, planar, 5 – 7 mm long, ca. 3 mm wide, aril not seen.

Geographical distribution: *Sloanea pubescens* can be found in the Atlantic Forest and in gallery forest of the following Brazilian states: Alagoas, Bahia, Minas Gerais, Pernambuco, Goiás and Mato Grosso.

14. *Sloanea retusa* Uittien, Recueil Trav. Bot. Néerl. 22: 353. 1925. Type: BRAZIL. Rio de Janeiro: Rio de Janeiro, Glaziou 10332 (holotype U!, isotypes K barcode 000381984!, P!).

Tree, 10 – 25 m in height. Leaves opposite to sub-opposite, rarely alternate; stipules persistent in young branches, 4 – 6 x ca. 1 mm; petioles 1.2 – 3.5 cm long; leaf blade 8 – 17.5 x 6 – 8 cm, obovate, margin sparsely serrate, rarely undulate. Inflorescences axillary; botryoid; peduncle 2 – 10 cm long. Flowers with 8 – 9 sepals, 3 – 4 x 1 – 1.5 mm, tomentose on both surfaces, ovate or lanceolate, uniseriate, unequal, entire or indented, apex acute, margin planar; sepals not covering the reproductive organs in the floral bud near anthesis; anthers ca. 1.5 mm long, elliptical; connective prolonged into an acute awn ca. 0.5 mm long; ovary 2 – 2.5 mm long, velutinous, ovate, sessile; style 2.5 – 3 mm long, straight, 4 – parted at the apex. Fruits elliptical; 4 – 5 valves, 2.3 – 3.2 x 0.7 – 1 cm, covered by bristles 1.5 – 2.5 mm long. Seeds 1, elliptical, ca. 15 x ca. 1 mm, aril red.

Geographical distribution: *Sloanea retusa* occurs in the Atlantic Forest of the Brazilian states of Rio de Janeiro, Espírito Santo, Minas Gerais, Alagoas and Bahia.

15. *Sloanea subsessilis* D. Sampaio & V.C. Souza. Phytotaxa 16: 47. 2011. Type: BRAZIL. Mato Grosso: Barra do Bugres, Fazenda Ochsenfeld, mata de galeria, 23 October 1995, Hatschbach et al. 63790 (holotype MBM!).

Tree, 6 – 8 m in height. Leaves opposite to alternate; stipules early deciduous, not observed; petioles 2 – 4 mm



long; leaf blade 7 – 23 x 3.5 – 11 cm, elliptical or obovate, margin entire. Inflorescences axillary or terminal; botryoid; peduncle 1 – 5 cm long. Flowers with 4 sepals, 5 – 8 x 2 – 4 mm, densely pubescent to tomentose on both surfaces, lanceolate, rarely ovate, uniseriate, equal, entire, apex acuminate, margin revolute; covering the reproductive organs in the floral bud near anthesis; anthers 2 – 3 mm long, oblong; connective prolonged into a short acuminate awn ca. 1 mm long; ovary ca. 2 mm long, short-pubescent, globose, sessile; style ca. 5 mm long, straight, 4 – parted at the apex. Fruits not seen.

Geographical distribution: *Sloanea subsessilis* occurs in gallery forest in the Brazilian state of Mato Grosso.

16. *Sloanea terniflora* (DC.) Standley, Trop. Woods 79: 10. 1944. *Lecostemon terniflorum* De Candolle (1825: 639). Lectotype (designed by McVaugh 2000: 218): MEXICO. Location not indicated, collector not indicated (no existing specimen: Tab. “The Torner Collection, n. 1944”).

=*Sloanea quadrivalvis* Seemann, Bot. Voy. Herald: 85, t. 15. 1853. *Dasycarpus quadrivalvis* (Seemann) Oersted, Vidensk. Meddel. Dansk Naturhist. Foren. Kjobenhavn 1855: 27. 1857. Type: PANAMA. Veraguas, 1849, *Seemann s.n.* (holotype K!, isotype K!).

=*Sloanea reticulata* A. C. Smith, Bull. Torrey Bot. Club 61: 194. 1934. Type: BRAZIL. Maranhão: 16 September 1932, *Froés 1918* (holotype NY barcode 00415350!, isotypes F barcode V0055211F!, G!, GH barcode 00052222!, K barcode 000382009!, P!, S!).

Tree, 7 – 12 m in height. Leaves alternate; stipules persistent in young branches, 3 – 5 x ca. 0.5 mm; petioles 2 – 10 mm long; leaf blade 4.5 – 9 x 2.3 – 4.5 cm, obovate, margin entire or serrate in first upper third of blade. Inflorescences axillary; triad; peduncle 1.5 – 3 cm long. Flowers with 4 sepals, 4 – 6 x 3 – 4 mm, pubescent on both surfaces, ovate, uniseriate, entire, equal, apex acuminate, margin revolute; sepals covering the reproductive organs in the floral bud near anthesis; anthers 1 – 1.5 mm long, elliptical; connective prolonged into an acuminate awn ca. 1 mm long; ovary ca. 1.5 mm long, short-pubescent, ovate, with branched trichomes, sessile; style ca. 1.5 mm long, twisted, apex entire. Fruits elliptical or globose; 4 – 5 valves, 1 – 1.5 x 0.5 cm, covered by bristles ca. 1 mm long. Seeds 1, ovate, ca. 8 x ca. 4 mm, aril not seen.

Geographical distribution: *Sloanea terniflora* has been recorded along rivers, wetlands and floodplains in the Brazilian states of Bahia, Maranhão, Mato Grosso, Paraná and São Paulo.

17. *Sloanea uniflora* D. Sampaio & V.C. Souza. Phytotaxa 16: 49. 2011. Type: BRAZIL. Mato Grosso: São Félix, beira do Rio das Mortes, 17 March 1997, *Souza et al. 14379* (holotype ESA!, isotype SPSF!).

Tree, 2 – 12 m in height. Leaves alternate to sub-opposite; stipules persistent, 2.5 – 5 x ca. 1 mm; petioles

1 – 3 cm long; leaf blade 5.5 – 16.3 x 2.5 – 7.7 cm, elliptical to obovate, margin entire or undulate. Inflorescences axillary; unifloral; peduncle 2 – 4.3 cm long. Flowers with 4 sepals, 9 – 12 x 5 – 7 mm, tomentose on both surfaces, ovate, uniseriate, entire, equal, apex acuminate, margin revolute and white-velutinous on inner surface; sepals covering the reproductive organs in the floral bud near anthesis; anthers 2 – 4 mm long, elliptical or lanceolate; connective prolonged into an aristate awn 1 – 2 mm long; ovary ca. 4 mm long, short pubescent, ovate, with branched trichomes, rare simple trichomes, sessile; style 3 – 4 mm long, twisted or straight, apex entire. Fruits ellipsoid or orbicular; 4 (5) valves 2 – 4 x 1.5 – 2.5 cm, covered by bristles 1 – 2 mm long. Seeds 1, elliptical, ca. 10 x ca. 0.5 mm, aril not seen.

Geographical distribution: *Sloanea uniflora* occurs in gallery forests, often at waterlogged sites or close to watercourses in the Brazilian states of Mato Grosso, Mato Grosso do Sul and Goiás.

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