

Contents

	Page
Introduction	385
Systematic treatment	388
Key to genera	388
<i>Cyathostegia</i> , with key to species	388
<i>Ateleia</i> , with key to species	391
Excluded species	406
New species	406
Collections cited	407
Index	411

Figure

1. Geographic distribution of <i>Cyathostegia</i> and <i>Ateleia</i>	386
--	-----

Plates

1. *Swartzia matthewsii*
2. *Swartzia weberbaueri*
3. *Ateleia pterocarpa*
4. *Ateleia tomentosa*
5. *Pterocarpus microcarpus*
6. *Ateleia apetala*
7. *Pterocarpus gummifer*
8. *Ateleia cubensis*
9. *Swartzia multijuga*

A RÉSUMÉ OF ATELEIA AND CYATHOSTEGIA (LEGUMINOSAE)

By VELVA E. RUDD

Introduction

In the Leguminosae, flowers with the corolla reduced to a single petal, presumably the vexillum, are interesting and enigmatic. To identify an unknown specimen to subfamily on the basis of the flower alone one must guess the position of that one petal in relation to the missing petals: would it be enfolded by the other petals, as is customary in members of the subfamily Caesalpinioideae, or be outermost and thus referable to the Faboideae. Anatomical studies of these aberrant flowers would be enlightening but, to my knowledge, such studies are yet to be made and one must seek other characters to aid in determination.

Two little known, superficially similar, unipetalate genera are *Ateleia* and *Cyathostegia*. The former, *Ateleia*, was first published by DeCandolle (1825) as a section of the genus *Pterocarpus*, in the tribe Dalbergieae, "subordo" Papilionaceae, "ordo" Leguminosae. Four species were included, one, *P. ateleia*, being based on "*Ateleia pterocarpa* fl. mex. ic. ined." of Sessé and Mociño. Bentham (1837, 1838) raised *Ateleia* to generic status in the tribe Dalbergieae but did not indicate specific combinations. Dietrich (1847), following the Linnaean system of classification, included "*Ateleia* Moc. et Sesse" in the "Diadelphia, Decandria" and transferred to the genus *Ateleia* the four species of DeCandolle's *Pterocarpus* section *Ateleia*. In 1860 Bentham stated, "DeCandolle's section *Ateleia*, of which he had not seen the flowers, comprises one or two species of an otherwise unpublished Caesalpineous genus . . .," but, in 1865, on the basis of the stamens with separate filaments, he placed *Ateleia* in the tribe Sophoreae of the "subordo" Papilionaceae. Taubert (1892), following the same interpretation, retained *Ateleia* as a genus of the tribe Sophoreae, in the "unterfamilie" Papilionatae. Hutchinson (1964), similarly, treated *Ateleia* as a genus of the tribe Sophoreae, in the "family" Fabaceae but expanded the circumscription to include *Cyathostegia*. Mohlenbrock (1962) in his revision of the genus refers

to *Ateleia* as "one of the Sophorean genera of papilionaceous legumes with strong affinities to the caesalpinaceous forms."

Cyathostegia was originally published by Bentham (1865) as a section of the genus *Swartzia* in the tribe Swartzieae of "subordo" Papilionaceae, without specific citation. In 1870 Bentham described the single species, *Swartzia matthewsii*, without tribal designation. Later that year, in Martius' *Flora Brasiliensis*, he assigned it to his *Swartzia* series *Cyathocalycinae*, without mention of the name *Cyathostegia*. Taubert (1892) treated *Cyathostegia* as a section of *Tounatea* (= *Swartzia*) in the tribe Tounateae, subfamily Caesalpinioideae. In 1950 Schery raised *Cyathostegia* to generic level in the "Caesalpinioideae, Swartzieae." Hutchinson (1964) reduced it to synonymy under *Ateleia*, in the "Fabaceae," tribe Sophoreae, but made no specific transfers. Cowan (1968) in his studies of *Swartzia* follows Schery in excluding *Cyathostegia* from *Swartzia*.

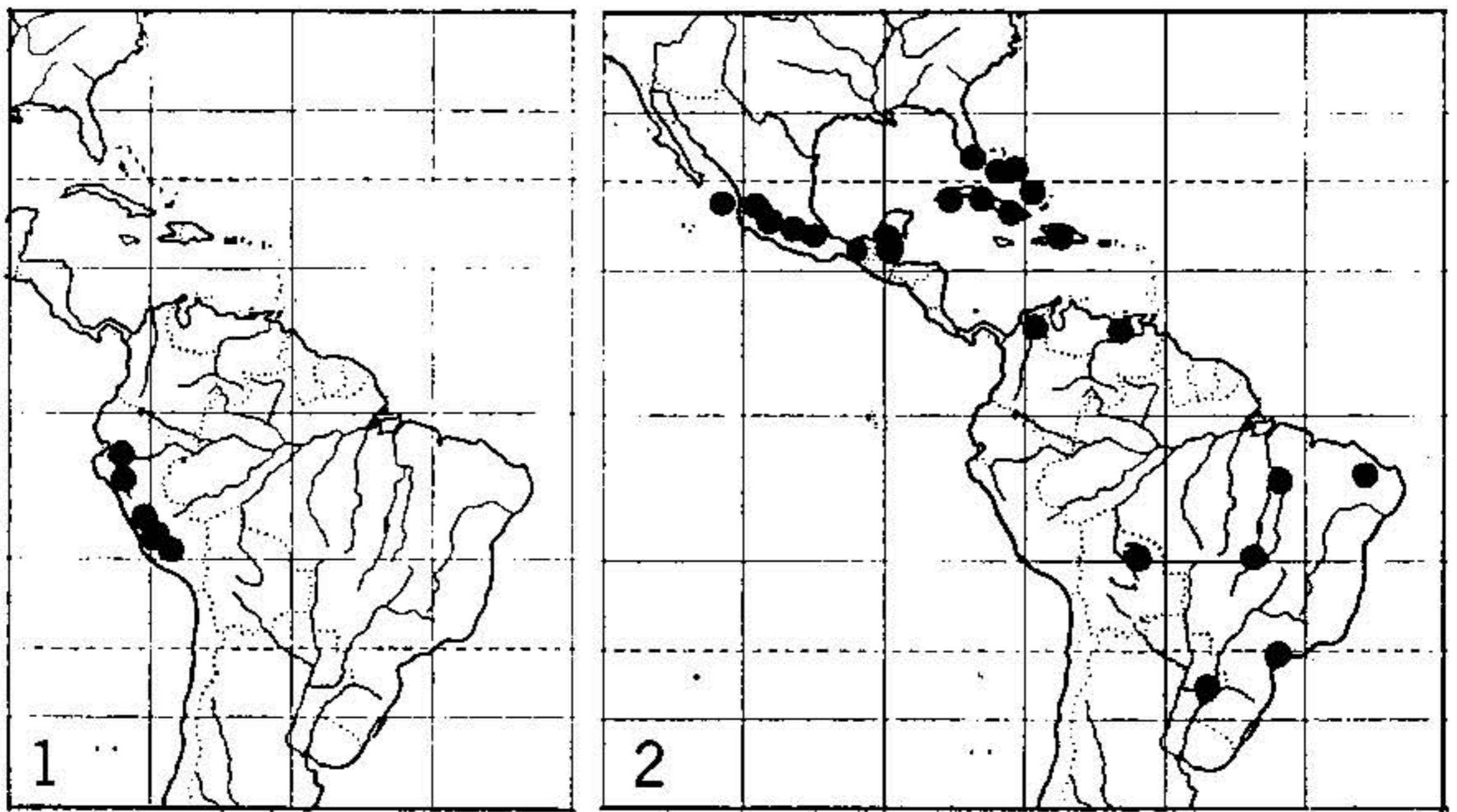


FIGURE 1.—Geographic distribution: 1, *Cyathostegia*; 2, *Ateleia*.

The similarity of *Ateleia* and *Cyathostegia* may be noted in characters other than the unipetalate corolla. First of all, the habit and general aspect are the same; both occur as shrubs or relatively small trees with pinnately compound leaves and white or yellowish flowers. In each case the calyx is essentially regular, cyathiform, truncate or subtruncate, valvate or subimbricate in bud. The fruits of *Cyathostegia* and at least one species of *Ateleia*, *A. arsenii*, from Mexico, show considerable resemblance. The reniform seeds of both genera, so far as known, appear to be almost identical. The most evident differences, as indicated in the key, are found in the stamens and the stigma.

Considering both the similarities and the dissimilarities, as currently understood, I prefer to treat *Ateleia* and *Cyathostegia* as distinct

genera, possibly both referable to the Caesalpinioideae, or the former referable to the Faboideae and the latter to the Caesalpinioideae.

The somewhat obscure relationship between *Ateleia* and *Cyathostegia* is but a part of a larger problem in the twilight zone between the clearly defined caesalpinoid and faboid genera of the Leguminosae, sensu latior. This zone includes, notably, two tribes sensu Hutchinson, the Cadieae and the Swartzieae, as well as what appear to be closely related genera in the Sophoreae. I know of no satisfactory classification, and it is unlikely that there can be one until we have adequate supporting data from anatomical, cytological, and chemical studies, as well as additional herbarium vouchers to amplify our knowledge of the general morphology and geographic distribution of the taxa.

The following systematic résumé is intended to facilitate identification of *Ateleia* and *Cyathostegia* and their component species, to revise certain points of nomenclature, to introduce a new species of *Ateleia*, and to provide a framework for supportive studies.

The citations of "F. M. Neg." refer to Field Museum (Chicago) negatives of a series of photographs taken in European herbaria by J. F. Macbride during the years 1929 to 1939.

Abbreviations of herbarium names are those of Lanjouw and Stafleu (Index Herbariorum, part I, ed. 5. 1964).

The maps presented in this paper are based on Goode Base Maps No. 101 M, copyright by the University of Chicago Press.

References Cited in the Introduction

- BENTHAM, G.
 1837. De Leguminosarum Generibus Commentationes 91, 101 (preprint).
 1838. Ann. Wien. Mus. Naturg. 2: 91, 101.
 1860. Proc. Linn. Soc. London 4, Suppl.: 17.
 1865. In Bentham & Hooker, Genera Plantarum 1: 561.
 1870. In Hook. Icon. ser. 3, 1: 51, pl. 1064.
 1870. In Martius, Fl. Bras. 15(2): 40.
- COWAN, R. S.
 1968. Flora Neotropica I. Swartzia.
- DECANDOLLE, A. P.
 1825. Prodr. 2: 419.
- DIETRICH, D.
 1847. Syn. Pl. 4: 1219.
- HUTCHINSON, J.
 1964. The genera of flowering plants 1: 331.
- MOHLENBROCK, R. H.
 1962. A revision of the leguminous genus "Ateleia." Webbia 17: 153, 186.
- SCHERY, R. W.
 1950. Miscellanea taxonomica. I. Ann. Mo. Bot. Gard. 37: 401.
- TAUBERT, P.
 1892. In Engler & Prantl, Die Natürlichen Pflanzenfamilien, Teil 3, Abt 3: 182, 191.

Systematic Treatment

Key to Genera

- Flowers 15–30 mm long, the petal entire or slightly sinuate; stamens numerous, commonly 20 to 30, the anthers oblong, about 2 mm. long; ovary with style 2–5 mm. long, the stigma subcapitate; fruit without an alate margin along the upper suture 1. *Cyathostegia*
- Flowers 5–17 mm. long, the petal crose or sinuate; stamens 10 or less, rarely 11, the anthers ellipsoid, 1 mm. long or less; ovary with style reduced, the stigma peltate, essentially sessile; fruit with a narrow wing along the upper suture (except almost lacking in *A. arsenii*) 2. *Ateleia*

1. *Cyathostegia* (Benth.) Schery

Cyathostegia (Benth.) Schery, Ann. Mo. Bot. Gard. 37: 401. 1950.

Swartzia section *Cyathostegia* Benth. in Benth. & Hook. Gen. Pl. 1: 561. 1865.

Swartzia series *Cyathocalycinae* Benth. in Martius, Fl. Bras. 15(2): 40. 1870.

Tounatea section *Cyathostegia* (Benth.) Taubert in Engler & Prantl, Natur. Pflanzenfam. 3, Abt. 3: 182. 1892.

Shrubs or small trees; leaves pinnate, 3–13-foliolate, the leaflets alternate; stipules linear to lanceolate, caducous; stipels lacking; inflorescences racemose, axillary or terminal, about 3–6 cm. long, commonly 10–30-flowered, the bracts and bracteoles small, linear, caducous; flowers 15–30 mm. long; calyx regular, cyathiform, subtruncate with 5 small deltoid teeth 0.5–2 mm. long, valvate in bud; petal 1, white, clawed, the blade oblong to elliptic, glabrous or sparsely pubescent on the outer face; stamens numerous, about 20–30, the filaments variable in length, shorter than the petal, united at the base, otherwise free, the anthers uniform, dorsifixed, oblong, about 2 mm. long; ovary pubescent, 1- or 2-ovulate, brevistipitate, the style 2–5 mm. long, glabrous except pubescent toward the base, the stigma terminal, subcapitate; fruit dehiscent, semiorbicular, 2-valved, commonly 2-seeded, compressed, stipitate, brevirostrate, the style mostly persistent; seeds reddish brown, reniform, the hilum orbicular, lateral.

Two species, in Peru and Ecuador. Type: *Swartzia matthewsii* Benth.

On the basis of the numerous stamens I favor excluding *Cyathostegia* from the Faboideae, members of which uniformly have flowers with 10 stamens, or fewer by reduction. Until more evidence is available, the genus might best be retained as a relative of *Swartzia*, in the Caesalpinioideae.

Key to Species of *Cyathostegia*

- Leaflets with blades ovate, oblong, or lanceolate-oblong, subcordate, rounded, or cuneate at the base, crisp-pubescent to subsericeous with hairs about 0.3–0.5 mm. long, usually glabrescent, the petiolules 1–3.5 mm. long, crisp-pubescent to subsericeous; flowers 15–30 mm. long, the calyx tomentulose

to subsericeous; fruit crisp-pubescent to subsericeous, sometimes glabrescent, 3.5–5 cm. long including stipe 1–1.5 cm. long (Ecuador; Peru).

1. *C. matthewsii*

Leaflets with blades lanceolate or lanceolate-oblong, cuneate at the base, sericeous with minute hairs about 0.2 mm. long or less, the petiolules 1–2 mm. long, sericeous; flowers 15–22 mm. long, the calyx sericeous; fruit sericeous, about 4.5 cm. long including stipe about 1.8–2 cm. long (Peru) . 2. *C. weberbaueri*

1. *Cyathostegia matthewsii* (Benth.) Schery, Ann. Mo. Bot. Gard. 37: 401. 1950.

PLATE 1

Swartzia matthewsii Benth. in Hook. Icon. ser. 3, 1: 51, pl. 1064. 1870.

Toungateia matthewsii (Benth.) Taubert, Bot. Centralbl. 47: 392. 1891.

Shrub or tree, to about 8 m. tall; leaves 3–13-foliolate, the axis tomentulose, 5–10 cm. long; stipules lanceolate, to about 10 mm. long and 4 mm. broad; leaflets with blades ovate, oblong, or lanceolate-oblong, 1.5–9 cm. long, 0.5–3.5 cm. broad, obtuse to acute, the base subcordate, rounded, or sometimes cuneate, the upper surface subglabrous to moderately crisp-pubescent, glabrescent, the midvein depressed, usually crisp-pubescent, the lower surface subsericeous when young, at maturity moderately subsericeous, crisp-pubescent, or the hairs patent, usually glabrescent, the petiolules 1–3.5 mm. long, crisp-pubescent to subsericeous; bracts linear or linear-lanceolate, 1–7 mm. long, 1.5–4 mm. broad, the bracteoles linear, 1–1.5 mm. long; flowers 15–30 mm. long; calyx tomentulose to subsericeous, 4–7 mm. long including teeth 0.5–2 mm. long; petal 15–30 mm. long, 5–18 mm. broad, the claw 5–10 mm. long; ovary white-villous; fruit crisp-pubescent to subsericeous, sometimes glabrescent, 3.5–5 cm. long including stipe 1–1.5 cm. long, 1–1.3 cm. broad; seed about 8–10 mm. long, 4–4.5 mm. broad, and 2–4 mm. thick.

TYPE: *Matthews* s.n., "Prov. Chachapoyas, Peru" (K). Lectotype by Macbride, Field Mus. Publ. Bot. 13(3): 226. 1943. Isotype at NY.

DISTRIBUTION: In xerophytic, deciduous woods in inter-Andean valleys of Peru and southern Ecuador, at elevations of 500–2,300 meters.

ADDITIONAL COLLECTIONS:

ECUADOR: LOJA: Between El Tambo and La Toma, *Hitchcock* 21333 (GH, NY, US). Between Loja and Portovelo, *Rose, Pachano, & Rose* 23338 (GH, NY, US). Near La Toma, *Steyermark* 54839 (F), 54840 (F); *Espinosa* 854 (NY). Río Catamayo drainage, valley of Malacatos, east of Malacatos (Valladolid) 25 km. south of Loja, *Fosberg & Giler* 22904 (NY, US).

PERU: "Santa Anna (Bolivia ?), at an elevation of 3–4000 ft.," *Pearce* s.n. (K syntype). "R. Santa Ana," *Pearce* s.n. (BM, NY isosyntypes ?). CAJAMARCA: Jaén, *Woytkowski* 5601 (US). Mountains west of Jaén, *Weberbauer* 6204 (A, F, GH, NY, US). Between Chamaya and Pucará, *Ferreyra* 15648 (UC, US). LIMA: Near La Molina, cultivated, *Ferreyra* 8911a (US). HUANCABELICA: "Tayacaja, Chejyacc, abajo de Surcubamba, Valle del Mantaro," *Tovar* 3708 (US). APURÍMAC: "Bombac-wald, alt. 2300 m.," *Hirsch* s.n. (NY). "Lower end of quebrada opposite Hacienda Airobamba; ford on Rio Pampas; gravelly terrace

in narrow canyon. Alt. 2000 m.," *West* 3703 (GH, UC). Cuzco: "Prov. Panuro, Huaca-chaca bridge; Apurímac river, on open gravelly slope," *Vargas* 2381 (GH).

The complete range of this species is not yet known but it possibly extends into Bolivia. I think it probable, however, that the syntype collection made by Pearce is from Peru, where the locality name, Santa Ana, is not uncommon.

The petal dimensions in this species are variable, even on the same branch. This may be more apparent than real due to differences in maturity of the flowers at the time of collection.

I have been tempted to treat material from Ecuador as a new species and also to assign it to *C. weberbaueri*. The fruit tends to be glabrate at maturity and the stipe is shorter than on the type material of *C. weberbaueri*. On the other hand, I have a feeling that all collections of *Cyathostegia* might be correctly referred to only one variable species. Until more data become available, I have decided to maintain the status quo, with two species.

Dr. J. N. Rose annotated specimens of two collections from Ecuador as a new species of *Cyathostegia*. Had he published, he would have anticipated by two or three decades Schery's elevation of *Cyathostegia* to generic rank.

2. *Cyathostegia weberbaueri* (Harms) Schery, *Ann. Mo. Bot. Gard.* 37: 401. 1950
PLATE 2

Swartzia weberbaueri Harms, *Fedde Rep. Sp. Nov.* 18: 235. 1922.

Shrub, about 2 m. tall; leaves 7-13-foliolate, the axis sericeous, about 5-7 cm. long; stipules linear, 1-3.5 mm. long; leaflets with blades lanceolate to oblong-lanceolate, 1.5-5 cm. long, 0.5-1.5 cm. broad, acute or obtuse, the base cuneate, the surfaces densely sericeous when young, at maturity moderately sericeous with minute hairs, the midvein lightly depressed, the petiolules 1-2 mm. long, sericeous; bracts linear, 2-4 mm. long, the bracteoles linear 1-1.5 mm. long; flowers 15-22 mm. long; calyx sericeous, 7-9 mm. long including teeth 1-1.5 mm. long; petal 15-22 mm. long and about 10 mm. broad, the claw 4-5 mm. long; ovary white-sericeous; fruit sericeous, about 4.5 cm. long including stipe 1.8-2 cm. long, 1.3 cm. broad; seed not seen.

TYPE: *Weberbauer* 7216, "Dep. Cajamarca, Prov. Cajabamba, zwischen San Marcos und dem Tale des Flusses Crisnejas, 2300-2500 m., regengrünes Gesträuch, Nov. 1916" (B, presumably destroyed; F fragment ex B; F. M. Neg. 1866 ex B). Isotypes at F, GH, US.

DISTRIBUTION: Known only from the type collection.

2. *Ateleia* (DC.) Benth.

Ateleia (DC.) Benth. Leg. Gen. Comm. 91, 101. 1837 (preprint); Ann. Wien. Mus. Naturg. 2: 91, 101, 1838.

Pterocarpus section *Ateleia* DC. Prodr. 2: 419. 1825; Mém. Lég. 393. 1826.

Ateleia [Sessé & Mociño ex] DC. Prodr. 419. 1825; Mém. Lég. 394. 1826, nomen in synon.

Shrubs or trees; leaves pinnate, 5–28-foliolate, the leaflets alternate or subopposite; stipules apparently lacking or reduced to a tuft of hairs; stipels lacking; inflorescences racemose, sometimes paniculate, axillary or terminal, about 5–20 cm. long with a few to several hundred flowers; bracts small, deltoid or linear, sometimes persistent, sometimes caducous; bracteoles apparently lacking; flowers 5–14 mm. long; calyx regular, cyathiform, valvate or subimbricate in bud, truncate or subtruncate with 5 lobes or teeth about 0.5 mm. long or less; petal 1, white or yellowish, clawed, cuculate, sometimes expanded at anthesis, glabrous or pubescent on the outer face, the margin erose or sinuate; stamens 6–10(–11), sometimes varying in number in flowers of the same inflorescence, the filaments free or attached at the base, alternately subequal in length, shorter than the petal, the anthers uniform, ellipsoid, 1 mm. long or less, dorsifixed; ovary pubescent or glabrous, brevistipitate, 1- or 2-ovulate, the stigma essentially sessile, peltate; fruit indehiscent, samaroid semiorbicular with a narrow wing along the upper suture, 2-valved, commonly 1-seeded, compressed, stipitate; seeds reddish brown to dark brown, reniform, the hilum lateral, orbicular or elliptic.

Sixteen species, in Mexico, northern Central America, the West Indies, and South America. Type: *Pterocarpus ateleia* DC.

Normally having 10 stamens with the filaments separate to the base, *Ateleia* is readily referable to the faboid tribe Sophoreae. In most characters, likewise, there is no basic disagreement with other genera of the group. However, certain relationships can also be found among the Caesalpinioideae sensu Taubert. Instability of stamen number, many specimens with less than 10 stamens per flower and one with 11 stamens per flower, is a character more often found in caesalpinoid genera. The peltate stigma of *Ateleia* is unique among the Faboideae, so far as I know, but it occurs in a few caesalpinoid genera such as *Arcoa*, *Bauhinia*, *Ceratonia*, and *Peltophorum*. Thus, the thought is strengthened that *Ateleia* might be related to *Cyathostegia*, although not congeneric.

Key to Species of *Ateleia*

(Some species incompletely known)

Leaflets with lower surface moderately to densely pubescent with crispate or spreading hairs, sometimes glabrescent.

Fruit, including stipe, 3.5–4 cm. long.

Flowers 10–14 mm. long, the calyx 4–6.5 mm. long, the petal pubescent; fruit pubescent, usually glabrescent, the wing along the upper suture very little developed; seed 9–15 mm. long (Mexico) **1. *A. arsenii***

Flowers less than 10 mm. long, the calyx 2–3 mm. long, the petal glabrous; fruit glabrous with the wing along the upper suture 1–2.5 mm. wide. Leaflets mostly rounded at the base, asymmetrical; petiolules 3–4 mm. long; fruit 1.5–1.8 cm. wide including wing 2–2.5 mm. wide (Mexico).

3. *A. truncata*

Leaflets mostly cuneate at the base, essentially symmetrical; petiolules 2 mm. long or less; fruit 1–1.5 cm. wide including wing 1–2 mm. wide (Mexico; British Honduras; Guatemala; West Indies).

8. *A. gummifera*

Fruit, including stipe, less than 3.5 cm. long.

Leaflets mostly rounded at the base, asymmetrical.

Fruit tomentose (Mexico) **6. *A. tomentosa***

Fruit essentially glabrous, the stipe sometimes puberulent.

Leaflets tomentose below; fruit 2–2.3 cm. long, including stipe, and 1–1.2 mm. wide (Mexico) **5. *A. pterocarpa***

Leaflets moderately pubescent below; fruit 2.5–3 cm. long, including stipe, and about 1.5 cm. wide (Mexico) **4. *A. standleyana***

Leaflets cuneate or rounded at the base, essentially symmetrical.

Base of leaflets usually rounded, the lower surface tomentulose, the margin revolute (Hispaniola) **9. *A. microcarpa***

Base of leaflets usually cuneate, the lower surface moderately pubescent, glabrescent, the margin not revolute.

Tertiary veins of leaflets usually inconspicuous (Mexico; British Honduras; Guatemala; West Indies) **8. *A. gummifera***

Tertiary veins of leaflets clearly reticulate (Cuba) . **10. *A. apetala***

Leaflets with lower surface glabrous to moderately pubescent with appressed or subappressed hairs.

Young fruit pubescent (mature fruit not known); leaflets with petiolules 4–8 mm. long (Colombia) **14. *A. herbert-smithii***

Young fruit glabrous except sometimes pubescent at base and along margin; mature fruit essentially glabrous except the stipe sometimes puberulent; leaflets with petiolules 4 mm. long or less.

Fruit 3–4 cm. long including stipe.

Leaflets rounded or acute at base, mostly asymmetrical.

Leaves 9–15-foliolate, the leaflets acute to obtuse at the apex.

Leaflets obtuse at apex; flowers 6–7 mm. long, the calyx 2.5–3 mm. long (Mexico) **2. *A. insularis***

Leaflets acute or subacute at apex; flowers [probably] about 5 mm. long, the calyx 2 mm. long (Bolivia) **16. *A. guaraya***

Leaves 20–28-foliolate, the leaflets mostly attenuate at apex; flowers about 5 mm. long, the calyx 2 mm. long (Brazil; Argentina; Paraguay) **15. *A. glazioveana***

Leaflets cuneate at base, essentially symmetrical (Mexico; British Honduras; Guatemala; West Indies) **8. *A. gummifera***

Fruit less than 3 cm. long including stipe (fruit of *A. salicifolia* not known but estimated to be within this range).

Base of leaflets rounded, asymmetrical.

Fruit with upper suture shorter than the body; leaflets ovate (Brazil).

12. *A. ovata*

Fruit (immature) with upper suture as long as the body; leaflets elliptic-oblong (Venezuela) 13. *A. venezuelensis*
 Base of leaflets cuneate, essentially symmetrical.

Tertiary veins of leaflets inconspicuous.

Leaflets with blades predominantly ovate, the length not much greater than the width; petiolules 2-3 mm. long (Mexico).

7. *A. albolutescens*

Leaflets with blades predominantly oblong, the length about twice the width; petiolules 2 mm. long or less (Mexico; British Honduras; Guatemala; West Indies) 8. *A. gummifera*

Tertiary veins of leaflets clearly reticulate.

Leaflets ovate to rhombic, acute to acuminate, the length 2 to 3 times the width (Cuba) 10. *A. apetala*

Leaflets linear, attenuate, the length about 7 times the width (Cuba).

11. *A. salicifolia*

1. *Ateleia arsenii* Standl. Contr. U.S. Nat. Herb. 20: 174. 1919.

Shrub, to about 1 m. tall; leaves 13-23-foliolate, the axis tomentulose, glabrescent, about 10-20 cm. long; leaflets with blades ovate, ovate-oblong, elliptic, or lanceolate-ovate, 1-5.5 cm. long, 0.5-2.5 cm. broad, acute to obtuse, the base obtuse, usually oblique, the upper surface moderately crisp-pubescent, glabrescent, the lower surface moderately crisp-pubescent, the secondary veins moderately conspicuous, the petiolules about 1 mm. long or less, crisp-pubescent; bracts deltoid to linear, 1-3 mm. long; flowers 10-14 mm. long; calyx tomentulose, 4-6.5 mm. long; petal 10-14 mm. long, 6-8 mm. broad, pubescent on the outer face, usually expanded at anthesis; ovary villous; fruit crisp-pubescent, glabrescent, 3.5-4 cm. long and 1.2-1.8 cm. broad, the upper margin essentially straight or slightly convex, incompletely developed, 1 mm. wide or less, the stipe 1-1.5 cm. long; seed 9-15 mm. long, 6-7 mm. wide, and about 2 mm. thick, the hilum about 0.8 mm. in diameter.

TYPE: *Arsène* 6655, Mexico, "Michoacán; Morelia, flancs du Quinceo, 2500 ? ou 3200 ? fruits en 1910" (US). Fragment at NY.

DISTRIBUTION: In oak woods, at elevations of about 1,800 to 3,000 meters. Known only from Mexico, from the states of México and Michoacán.

ADDITIONAL COLLECTIONS:

MEXICO: MÉXICO: Nanchititla, *Hinton* 3421 (A, F, G, K, MEXU), 6158 (A, F, K, MICH, US), 7621 (A, F, G, K); *Matuda* 37472 (MEXU). Temascaltepec, *Hinton* 407 (BM), 3526 (F, K), 4240 (A, BM, F, G, K), 5286 (A, BM, F, G, K, NY, US), 6093 (A, BM, G, K, MEXU, NY, US). MICHOCÁN: Quinceo, vicinity of Morelia, *Arsène* 2790 (GH, L, NY fragment, US).

LOCAL NAME: Haba de venado (Temascaltepec, Mexico).

This species is readily distinguished from the others by its larger calyx, pubescent petal, larger seeds, and its fruit with almost no wing

along the upper suture. The label of *Hinton* 3421 notes that this species provides food for deer.

2. *Ateleia insularis* Standl. Contr. U.S. Nat. Herb. 20: 175. 1919.

Tree or shrub, to about 10.5 m. tall; leaves 9–15-foliolate, the axis puberulous with appressed or subappressed hairs, glabrescent; leaflets; with blades ovate, 2–6.5 cm. long, 1–3.5 cm. broad, obtuse, the base obtuse, oblique, the surfaces glabrous except for a few appressed or subappressed hairs, especially along the midvein, the secondary veins moderately conspicuous, the petiolules 2–4 mm. long, puberulent, glabrescent; bracts deltoid, 0.5 mm. long or less; flowers 6–7 mm. long; calyx puberulent, 2.5–3 mm. long; petal 6–7 mm. long and about 4 mm. broad, glabrous, usually expanded at anthesis; ovary essentially glabrous; fruit glabrous, 3–4 cm. long, 1.5–2 cm. broad, the upper margin convex with a wing 2–3 mm. wide, the stipe 0.8–1 cm. long; seed about 7 mm. long, 4 mm. wide, and 4 mm. thick, the hilum about 0.8 mm. in diameter.

TYPE: *Nelson* 4186, Isla María Madre, Nayarit, Mexico (US). Isotype at A, F, NY fragment, P.

DISTRIBUTION: Known only from Isla María Madre, Nayarit, Mexico, at elevations of 700 meters or less.

ADDITIONAL COLLECTIONS:

MEXICO: NAYARIT: Isla María Madre, *Ferris* 5573 (A, DS, US), 5742 (DS, US); *Howell* 10471 (A); *Maltby* 73 (US); *Mason* 1843 (K, US).

Essentially the only difference between this species and the nearest mainland species, *A. standleyana* and *A. truncata*, is the presence of appressed pubescence rather than crispate or spreading.

3. *Ateleia truncata* Mohlenbrock, Webbia 17: 180, figs. 4, 17. 1962.

Tree or shrub; 11–13-foliolate, the axis about 9–10 cm. long or more, tomentulose; leaflets with blades elliptic to ovate or obovate, 4–6 cm. long and 1.5–3 cm. broad, obtuse, retuse, the base cuneate to obtuse, oblique, the upper surface crisp-pubescent, glabrescent, the lower surface moderately pubescent, the hairs crispate or somewhat spreading, the secondary veins moderately conspicuous, the petiolules 3–4 mm. long, tomentulose; bracts deltoid, 0.5–1 mm. long; flowers about 6–7 mm. long; calyx tomentulose, glabrescent, 2.5–3 mm. long; petal about 6–7 mm. long, 4 mm. wide, glabrous, probably expanded at anthesis (mature flowers not seen); ovary glabrous; fruit glabrous, 3.5–4 cm. long, 1.5–1.8 cm. broad, the upper margin convex with a wing 2–2.5 mm. wide, the stipe about 1 cm. long; seed (submature) about 7 mm. long, 4 mm. broad, and 2 mm. thick, the hilum about 1 mm. in diameter.

TYPE: *Salazar* s.n., March 6, 1914, Hacienda de la Huerta, near Apatzingán, Michoacán, Mexico (US). Isotypes at MEXU.

DISTRIBUTION: Known only from the type collection.

LOCAL NAME: Piojillo.

The species is characterized by the relatively large glabrous fruit. Because it is known only from the one collection it is difficult to know how "good" a species it is.

4. *Ateleia standleyana* Mohlenbrock, *Webbia* 17: 179, figs. 4, 16. 1962.

Tree, to about 12 m. tall; leaves 9–15-foliolate, the axis about 12–20 cm. long, velutinous, glabrescent; leaflets with blades ovate to sub-orbicular, 1–8.5 cm. long, 1–5.5 cm. broad, obtuse to acute, the base obtuse, oblique, the upper surface minutely crisp-pubescent to sub-appressed pubescent along the midvein, otherwise glabrous, the lower surface moderately crisp-pubescent, glabrescent, sometimes glaucous, the secondary veins moderately conspicuous, the petiolules 2–4 mm. long, crisp-pubescent; bracts deltoid, about 1 mm. long; flowers 6–7 mm. long; calyx 2–3 mm. long, tomentulose; petal 6–7 mm. long and about 2 mm. wide, cucullate or expanded at anthesis; ovary pubescent along the margin and at the base, otherwise glabrous; fruit mostly glabrous, 2.5–3 cm. long and about 1.3–1.5 cm. broad, the upper margin concave or convex with a wing 1–1.5 mm. wide, sometimes pubescent at the base of the stigma, the stipe puberulous to sub-glabrous, about 6 mm. long; seed about 6 mm. long, 4 mm. broad, and 1.5 mm. thick, the hilum about 1 mm. long and 0.9 mm. wide.

TYPE: *Rose, Standley, and Russell* 14474, dry hill, vicinity of Acaponeta, Tepic, Nayarit, Mexico (F). Isotypes at A, GH, NY fragment, US.

DISTRIBUTION: Known from Nayarit and western Jalisco, Mexico, at elevations of 30–450 meters.

ADDITIONAL COLLECTIONS:

MEXICO: NAYARIT: 1 km. north of El Cuatante, Valle de Banderas, *Rzedowski* 17870 (INCB). JALISCO: Soyatán, 30 km. south of Talpa, *Rzedowski* 15173 (INCB, US). Sta. Lucía, 7 km. north of Llano Grande, *McVaugh (Feddem)* 21275A (MICH).

LOCAL NAME: Jediondillo (Jalisco).

5. *Ateleia pterocarpa* Moc. & Sessé ex D. Dietr. Syn. Pl. 4: 1219. 1847. PLATE 3
Ateleia pterocarpa [Sessé & Moc. ex] DC. Prodr. 2: 419. 1825; *Mém. Lég.* 394. 1826, nomen in synonym.

Pterocarpus ateleia DC. Prodr. 2: 419. 1825; *Mém. Lég.* 394. 1826.

Tree or shrub, to about 7 m. tall; leaves 7–18-foliolate, the axis tomentulose, to about 15 cm. long; leaflets with blades ovate to elliptic, 2–8.7 cm. long, 1–5 cm. broad, obtuse to acute, sometimes retuse, the base rounded or acute, oblique, the upper surface puberulent

along the midvein, otherwise glabrous, the lower surface moderately tomentose, glabrescent, the secondary veins moderately conspicuous, the petiolules 2–3 mm. long, tomentulose; bracts deltoid, 1 mm. long; flowers 4–5 mm. long; calyx tomentulose, about 1.5–2 mm. long; petal 4–5 mm. long and 1.5–2 mm. wide, glabrous; ovary glabrous except for some pubescence on the stipe; fruit glabrous, 2–2.3 cm. long, 1–1.2 cm. broad, the wing 1–1.5 mm. wide, the stipe 4–7 mm. long, sometimes pubescent toward the base; seed about 5 mm. long, 3 mm. wide, and about 2 mm. thick.

TYPE: Plate 288, a painting from the unpublished "Flora Mexicana" of Sessé & Mocino, in the DeCandolle Library (G-DC; F. M. Neg. 30639 ex G-DC). [Lectotype by A. DeCandolle, "Calques des dessins de la Flore du Mexique de Mociño et Sessé qui ont servi des types d'espèces dans le systema ou le prodromus" 2: 288. 1874]. "Habitat in agris Cordovae et in Praedio S. Josephi" (Sessé & Mociño, Fl. Mex. ed. 2, 164. 1894 as *Amorpha*).

DISTRIBUTION: Southern Mexico, in savanna, at elevations of about 200 to 1,000 meters.

ADDITIONAL COLLECTIONS:

MEXICO: Without exact locality, presumably Veracruz, "in agris Cordovae" or "in Praedio S. Josephi," Sessé & Mociño 2017 (F, MA in part). VERACRUZ: Acatlán, Salazar s.n. (US). "Vallée de Cordova," Bourgeau 1899 (BM, K). Chihuilapan, south of Laguna de Catemaco, Los Tuxtlas, Sousa 2376 (MEXU, US). OAXACA: Chivela, Mell 15 (NY, US fragment). Temascal, Sousa 1319 (MEXU). Near Presa Alemán, Temascal, González-Quintero 533 (ENCB, US). CHIAPAS. Siltepec, Matuda 1588 (A, K, MEXU, MICH, NY, US). Amatenango del Valle, Matuda 5833 (LL, MEXU, US), 15833 (F). Pishtimbak, north of Tuxtla Gutierrez, Miranda 6029 (MEXU, US). Rancho Lindavista, 24 km. east of Villa Flores, Miranda 5993 (MEXU, US), 6435 (MEXU, US). San Quintín, Sohns 1639 (MICH, US). Habenal, Tenejapa, Breedlove 6487 (DS, US), 7644 (DS, ENCB, US).

LOCAL NAME: Huapinole (Veracruz).

Among Mexican *Ateleia* this species has the smallest fruit, with the shortest stipes. The pubescent leaflets have counterparts only in *A. tomentosa*.

According to Dr. Rogers McVaugh, who has been making a special study of Sessé and Mociño, the locality "in Praedio S. Josephi" is at or near Tospa, in the vicinity of Orizaba and Córdoba, Veracruz, Mexico.

The specimens of Sessé and Mociño 2017 cited above were annotated originally as *Amorpha fruticosa* and, presumably, are the basis for the description of *Amorpha* in their Flora Mexicana. At Paris there is a specimen of *Ateleia* with what appears to be an authentic Sessé and Mociño label, "Amorpha fruticosa NE" [Nueva España], but which is a specimen of *A. gummifera* with obovate or obovate-elliptic

leaflets closely resembling those in the illustration of *Swartzia multijuga* A. Rich., from Cuba. The sheet at Madrid bears a branch of *A. pterocarpa* with ovate leaflets and, in addition, one leaf of *A. gummifera*, with obovate-elliptic leaflets. Because a mixture of material is involved the correct interpretation of the species could be questioned. However, the painting, which is the type, clearly shows ovate leaflets that permit selection of one element of the Sessé and Mociño collection 2017 rather than the other.

6. *Ateleia tomentosa* Rudd, sp. nov.

PLATE 4

Ateleia pterocarpa affinis sed fructibus tomentosus notabilis.

Tree, about 12 m. tall; leaves 9–11-foliolate, the axis tomentose, about 8–12 cm. long; leaflets with blades ovate, 1–6 cm. long and 0.8–3 cm. broad, acute or subacute, the base rounded, usually oblique, the upper surface moderately pubescent, glabrescent, the lower surface tomentose, the secondary venation moderately conspicuous, the petiolules 2–3 mm. long, tomentulose; bracts deltoid, about 1 mm. long; flowers about 6 mm. long; calyx tomentulose, about 2.5 mm. long; petal glabrous, about 6 mm. long and 4–5 mm. long, somewhat expanded at anthesis; ovary pallid-villous; fruit [submature] tomentose, 2.5–2.8 cm. long and 1.2–1.3 cm. broad, including stipe about 8 mm. long, the upper margin straight or concave, the wing about 1 mm. wide; mature fruit and seed not seen.

TYPE: In the U.S. National Herbarium, no. 2466330, collected on a "wooded slope 3 miles southwest of Pinola Las Rosas along road to Soyatitán, Municipio of Venustiano Carranza, elevation 4200 feet, Chiapas, Mexico, 27 July 1965," by Dennis E. Breedlove (no. 11395). Isotype at DS.

DISTRIBUTION: Known only from the type collection.

In a genus with predominantly glabrous fruit a species with such densely pubescent pods as *A. tomentosa* is outstanding. Known thus far only from the type collection, it appears to be another of the several locally endemic species of *Ateleia*.

7. *Ateleia albolutescens* Mohlenbrock, Webbia 17: 182, figs. 4, 18. 1962.

Tree or shrub, to about 6 m. high; leaves 5–9-foliolate, the axis puberulent, about 6–10 cm. long; leaflets with blades predominantly ovate, sometimes rhombic to suborbicular, 3–7.5 cm. long, 2–5 cm. broad, obtuse to acute, sometimes retuse, the base cuneate, the upper surface puberulent along the midvein, glabrescent, sometimes nitid, the lower surface puberulent with whitish, subappressed hairs glabrescent, the secondary veins relatively inconspicuous, the petiolules 2–3 mm. long, puberulent; bracts deltoid, about 6 mm. long; flowers about 6 mm. long; calyx tomentulose, 1.5–2 mm. long; petal about 6 mm. long and 2–3 mm. wide; ovary glabrous or ciliate, glabrescent,

the stipe usually pubescent; fruit glabrous, 2–2.5 cm. long and 1–1.5 cm. broad, the upper margin convex or almost straight with a wing 1–2 mm. wide, the stipe puberulent, glabrescent, about 5–6 mm. long; seed 4.5–5 mm. long and 3–3.5 mm. wide (fide Mohlenbrock).

TYPE: *Purpus* 9248, September 1923, Hacienda Monserrate [south-east of Cintalapa], "Sierra Madre, Rocky Mt. slopes. Rare," Chiapas, Mexico (GH). Isotypes at F, NY, UC, US.

DISTRIBUTION: Known only from the general area of the type collection, in rocky ravines.

ADDITIONAL COLLECTIONS:

MEXICO: CHIAPAS: Hacienda Monserrate, *Purpus* 10291 (US), 10544 (A, F, NY) 10549 [or 10544 ?] (GH, UC), 10577 [or 10544 ?] (A). "Tuxtla Gutierrez-Jalisco" [Arriaga], *Purpus* 9248 (US).

This is another species known only from a limited area. In its general aspect it suggests relationships both with the Mexican *A. pterocarpa* and the Antillean *A. gummifera*.

The various sheets of *Purpus* 9248 apparently do not represent a "pure" collection, i.e., material from at least two different plants are included, sometimes one, sometimes the other. The holotype at GH appears to be a mixed sheet, as is one sheet at US bearing a different locality citation.

8. *Ateleia gummifera* (DC.) D. Dietr. Syn. Pl. 4: 1219. 1847. PLATES 7, 8, 9

Pterocarpus gummifer Bert. ex DC. Prodr. 2: 419. 1825; Mém. Lég. 395, pl. 57, f. 1. 1826.

Dalbergia gummifera Spreng. ex DC. Mém. Lég. 395. 1826, nomen in synonym.

Swartzia multijuga A. Rich. Essai Flor. Cuba 457. 1846; in Sagra, Hist. Fis.,

Pol., y Nat. Cuba 10: 201. 1846; 12: tab. 42. 1846, non Vog. 1837.

Ateleia cubensis Griseb. Mem. Am. Acad. N.S. 8: 180. 1860.

Ateleia multijuga (A. Rich.) A. S. Hitch. Rep. Mo. Bot. Gard. 4: 80. 1893.

Ateleia tumida Mohlenbrock, Webbia 17: 166, figs. 3, 10. 1962.

Ateleia gummifera var. *cubensis* (Griseb.) Mohlenbrock, Webbia 17: 172. 1962.

Ateleia parvifolia Mohlenbrock, Webbia 17: 174. 1962.

Shrub or small tree, to about 7 m. tall; leaves 5–13-foliolate, the axis puberulent, glabrescent, about 5–10 cm. long; leaflets with blades elliptic, rhombic, oblong, obovate, or ovate, 1–8 cm. long, 0.5–3.5 cm. broad, obtuse to subacute, sometimes retuse, the base cuneate to obtuse, the surfaces usually glabrous at maturity, sometimes pubescent, especially along the midvein, the hairs appressed or crispate, the secondary veins usually inconspicuous, the petiolules 2 mm. long or less, puberulent, glabrescent; bracts deltoid, commonly 1 mm. long; bracteoles apparently lacking; flowers 5–6 mm. long; calyx tomentulose, sometimes glabrescent, 2–3 mm. long; petal 5–6 mm. long, 2–4 mm. wide, cucullate, sometimes expanded at anthesis; ovary puberulent along margin and at the base, otherwise glabrous; fruit glabrous, 2–3.5 cm. long and 1–1.5 cm. broad, the upper margin with a wing

1–2 mm. wide, the stipe 0.5–1.3 cm. long, puberulent or glabrous; seed 5–7 mm. long, 3–3.5 mm. broad, and about 2 mm. thick, the hilum 1 mm. in diameter.

TYPE: *Bertero* s.n., "S. Doming.," Dominican Republic (G-DC; F. M. Neg. 33439 ex G-DC).

DISTRIBUTION: Mexico, northern Central America, and the West Indies, at elevations from about sea level to 1,000 meters.

ADDITIONAL COLLECTIONS:

MEXICO: CAMPECHE: Tuxpeña, *Lundell* 849 (A, DS, GH, K, MICH, NY, UC, US), 862 (DS, GH, MICH, NY, UC, US).

GUATEMALA: PETÉN: Tikal National Park, *Contreras* 555 (F, IJ).

BRITISH HONDURAS: COROZAL: Freshwater Creek Reserve, *Castillo* 32 (F). ORANGE WALK: Honey Camp, *Lundell* 680 (A, DS, F, GH, K, NY, UC, US). BELIZE: Near Manatee Lagoon, *Peck* 237 (GH). STANN CREEK: All Pines, *Schipp* 705 (A, BM, F, G, GH, K, MICH, NY, UC, US fragment).

BAHAMAS: ANDROS I.: *Brace* 5238 (F, NY), 6964 (F), 6985 (F, NY); *Small & Carter* 8714 (F, K, NY, US), 8784 (F, GH, K, NY, US). CAT I.: *Britton & Millspaugh* 5769 (F, NY). ELEUTHERA I.: *E. Britton* 6461 (F, NY); *Britton & Millspaugh* 5407 (F, NY). GREAT EXUMA I.: *Britton & Millspaugh* 2932 (F, NY). NEW PROVIDENCE I.: *Brace* 81 (F), 82 (NY), 536 (F); *Britton & Brace* (F, NY); *Curtiss* 37 (A, E, F, G, GH, K, L, MICH, NY, US); *Fisher* 1884 (L). NORTH CAICOS I.: *Wilson* 7722 (F, GH, K, NY); *Proctor* 9017 (IJ).

CUBA: Without exact locality: "Littoral," *Linden* 2044 (BM, BR, G, K). PINAR DEL RÍO: Guane, *Shafer* 10517 (NY, US). Cajalbana, *Alain* 2361 (GH, US). Las Pozas, *Alain* 2580 (GH, IJ). Viñales, *Alain* 2906 (GH, IJ). Pan de Azúcar, *Morton* 9891 (US).

HABANA: Isla de Pinos, *Britton, Britton, & Wilson* 15095 (NY, US); *Ekman* 12006 (NY). Cojimar, *Baker & Donovan* 4420 (NY); *van Hermann* 4420 [= *Baker & Donovan* 4420 ?] (POM); *Killip* 13811 (US); *León & Alain* 20437 (GH, IJ, US), 20438 (GH). "El Morro to Cojimar," *Wilson* 9137 (NY). "Rio Almendares to Playa de Marianao," *Wilson* 9492 (NY). "Thickets east of Playa de Marianao," *León & Hioram* 5695 (GH, IJ, NY). Managua, Mariano Beach, *León* 8467 (GH, IJ, NY). Coastal thickets west of Chorrera, *León* 4122 (GH, IJ, NY). Madruga, *Britton, Britton, & Shafer* 633 (F, NY). LAS VILLAS [formerly Santa Clara]: Cienfuegos, *Jack* 7564 (A, US), 8431 (NY, US); *Atchison* 274 (US). Pasa Caballo, *Wood & Atchison* 7447 (IJ). CAMAGÜEY: "La Gloria to Pilota," *Shafer* 569 (BM, F, GH, NY, US). Cayo Guajaba, *Shafer* 678 (F, NY, US). Cayo Ballenato Grande, *Shafer* 1032 (GH, NY, US). Cayo Romano, Pueblo Romano, *Shafer* 2441 (F, NY, US), 2472 (F, NY, US). Cayo Romano, Salina de la Principal, *Shafer* 2622 (F, GH, NY, US). Cayo Paloma, *Shafer* 2556 (F, GH, NY, US), 2596 (BM, F, GH, NY, US).

ORIENTE: Without exact locality [cited by Grisebach as "Nouvelle Sophie"], *Wright* 144 (GOET, MICH, UC, US); "Potrero San Andre, Farallones," *Wright* 144 (GH). "At edge of the Farallones," *Wright* 144 (GH). Holguin, *Shafer* 1223 (GH, NY, US); *Ekman* 3239 (A). "Sabana to Maisi," *Shafer* 7905 (K, NY, US). Santiago Bay, El Morro, *Britton & Cowell* 12565 (NY, US). Mir, *Ekman* 4857 (US), 7532 (US type of *A. parvifolia*). Cupey, *Ekman* 6290 (A). Reuter ["S. Juan de B^{na}. Vista"], *León* 3735 (NY). Santiago de Cuba, *Clemente* 2044 (GH, IJ, US), 3043 (GH), 4841 (GH), 5121 (GH, IJ), 6272 (GH, IJ), 7029 (GH); *López* 216 (US), 887 (IJ, US). Montecristo, *Alain & Morton* 5227 (GH);

Morton & Alain 9198 (US). North slope of Sierra Nipe, *Morton & Acuña* 2998 (US). Monte Picote, southern end of Sierra Nipe, *Morton* 9752 (US). Finca Confianza, near Guantánamo, *Hioram* 1970 (NY, US fragment).

HAITI: NORD: Between La Branle and Chaine de Belance [as "La Brande to Mt. Balance"], *Nash & Taylor* 1658 (NY, US). OUEST: "Massif de la Selle, Port-au-Prince, Monfleury," *Ekman* H. 9178 (A, GH, NY, US). Pétionville, *Buch* 2065 (IJ). Between Pétionville and Kenscoff, *Buch* 1460 (IJ, US).

DOMINICAN REPUBLIC: BARAHONA: Without other locality, *Fuertes* s.n. (A type of *A. tumida*, US fragment). Rincon, *Fuertes* 1331 (A). SAN CRISTÓBAL: Cambita, *Jiménez [Marcano]* 4091 (US). SAN JUAN: Rio Arriba del Norte, *Howard & Howard* 8901 (GH, US).

LOCAL NAMES: Balsamo hediondo, cerezo (Cuba); tushche (British Honduras).

Although there is some variation in their leaflet characters, there also is considerable intergradation; I believe that the taxa listed in synonymy above are all referable to *A. gummifera*. The type of *Pterocarpus gummifer* at G-DC and the specimen of *A. cubensis* (*Wright* 144) in the Herbarium Grisebachianum at GOET are almost identical, with predominantly oblong leaflets. The latter specimen was cited by Grisebach in connection with his new name for *Swartzia multijuga* A. Rich., which he had found to be a later homonym. The illustration of *S. multijuga* shows leaflets predominantly obovate. The type of *A. parvifolia* has smaller than average leaflets, but some, equally small, can be found on other specimens. Larger than average leaflets are found on specimens from the Yucatan Peninsula. Pubescence is variable; most of the leaflets are glabrous or sparsely appressed-pubescent but some from Hispaniola, eastern Cuba, and the Yucatan Peninsula tend toward crisp-pubescence, suggesting affinities, either by origin or by introgression, with *A. pterocarpa* at the western end of the range and *A. microcarpa* at the eastern end.

The exact publication date of Richard's work has been problematic. I am following the conclusions of Dr. George Brizicky (*Journ. Arn. Arb.* 43: 86. 1962) that 1846, as cited above, is correct for the pages pertinent to this genus.

Separating *A. gummifera* and *A. cubensis* on the basis of glabrous and pubescent calyces, respectively, is not accurate. The type of *A. gummifera*, collected by Bertero sometime between 1816 and 1821 was apparently well weathered by the time of gathering and has since suffered attrition due to handling.

The specimen on which *A. tumida* is based bears abnormal twinned fruits, the tumidity in each case being the smaller of a pair of pods joined at the upper margin. The members of each pair share a common stipe but have individual stigmas.

I am grateful to Dr. Lyman B. Smith for checking and photographing the specimens of the Wright collections of *A. cubensis* at GOET.

9. *Ateleia microcarpa* (Pers.) D. Dietr. Syn. Pl. 4: 1219. 1847.

PLATE 5

Pterocarpus microcarpus Pers. Syn. Pl. 2: 277. 1807.

Ateleia revoluta Mohlenbrock, Webbia 17: 174, f. 7. 1962.

Shrub; leaves 5–11-foliolate, the axis tomentulose, about 4–9 cm. long; leaflets with blades elliptic to obovate, 0.5–5 cm. broad, obtuse, sometimes emarginate, the base obtuse, the margin revolute, the upper surface moderately crisp-pubescent, glabrescent, the lower surface tomentose, the hairs mostly ferruginous, sometimes glabrescent, the secondary venation inconspicuous, the petiolules 0.5–1.5 mm. long, crisp-pubescent; bracts deltoid, about 0.5 mm. long; flowers about 6–7 mm. long; calyx tomentulose, about 2 mm. long; petal 6–7 mm. long and 2–3 mm. wide, sometimes expanded at anthesis; ovary ciliate and the stipe puberulent, otherwise glabrous; fruit glabrous except for the puberulent stipe, 1.8–2.5 cm. long, 1–1.2 cm. wide including wing 1–2 mm. wide, the stipe about 5 mm. long; seed not seen.

TYPE: *Dupuy* s.n., "Hab. in India (Herb. Dupuis et Juss.)," apparently from the Dominican Republic (P-JU). Isotype at G-DC; F. M. Neg. 33441 ex G-DC.

DISTRIBUTION: Known only from the Dominican Republic, at elevations up to about 400 meters.

ADDITIONAL COLLECTIONS:

DOMINICAN REPUBLIC: Santiago, *Wright, Parry, & Brummel* 98 (US). "Prov. of Monte Cristy," Monción, *Valeur* 715 (F, G, K, MICH type of *A. revoluta*, NY, US).

LOCAL NAME: Azota potranca.

Comparison of specimens of *A. microcarpa*, in fruit, and *A. revoluta*, in flower, shows the two taxa to be synonymous.

In 1895, Millspaugh, apparently unaware of Dietrich's treatment of *Ateleia*, published the superfluous combination, *Ateleia microcarpa* (Pers.) Millsp. Field Mus. Bot. Ser. 1: 21. 1895, and cited one of his own collections from Yucatán, Mexico: "Scrub about Izamal, Jan. 23, 1895 (177)." I have not been able to locate that specimen, which I expected to find at F, but suspect that it might be a collection of *A. gummifera*.

Dr. Alicia Lourteig has very kindly searched for material of *Pterocarpus microcarpus* Pers. at Paris and has written that a "splendid

specimen" is in the Jussieu Herbarium with a label in Jussieu's hand: "Donné par M. Dupuy." That sheet may be considered the type.

10. *Ateleia apetala* Griseb. Cat. Pl. Cuba 80. 1866.

PLATE 6

Ateleia apetala var. *pubescens* León, Contrib. Ocas. Mus. Hist. Nat. Col. "De La Salle" No. 9: 13. 1950.

Tree or shrub, to about 12 m. tall; leaves 5-15-foliolate, the axis 3-12 cm. long, appressed-pubescent, glabrescent; leaflets with blades lanceolate, ovate, or rhombic, 1-10 cm. long, 0.5-4 cm. broad, acute to acuminate, the base cuneate, the surfaces commonly glabrous but sometimes pubescent with appressed hairs, the tertiary veins reticulate, the petiolules 1-4 mm. long, puberulent, glabrescent; bracts deltoid, about 0.5 mm. long; flowers 4-5 mm. long; calyx tomentulose, 1.5-2 mm. long; petal 4-5 mm. long and 2 mm. wide, glabrous; ovary glabrous except the stipe sometimes strigillose; fruit glabrous, 1.5-2.5 cm. long and 1 cm. broad including the wing about 1-1.5 mm. wide the stipe 0.5-1 cm. long; seed (submature) about 5 mm. long, 3 mm. wide, and 1 mm. thick, the hilum elliptic, 1 mm. long and 0.5 mm. wide; mature seed not seen.

TYPE: *Wright* 2381, "Cuba occ., pr. Retiro" [near Santa Cruz de los Pinos, Pinar del Río, Cuba] (GOET). "Isotypes" at BM, G, GH, K, NY, P, US.

DISTRIBUTION: Limestone areas of Cuba; cultivated in southern Florida, United States.

ADDITIONAL COLLECTIONS:

UNITED STATES: FLORIDA: Dade Co.: Near Homestead, cultivated, *Ledin* s.n. (NY).

CUBA: PINAR DEL RÍO: Sierra de Anafe, Loma San Gabriel, *Ekman* 10559 (US). Sierra Anafe, *León* 8815 (GH, IJ, NY). El Mogote, Soroa, *Alain* 2774 (GH, US). Pan de Guajaibón, *Alain & Acuña* 2955 (IJ). MATANZAS: Near Matanzas, *Rugel* 785 (NY), 800 (NY). Boca de Canasí, *León* 13689 (GH, IJ). Cárdenas, *Britton & Wilson* 180 (NY). Cumbre, near Matanzas, *Britton & Wilson* 87 (NY). LAS VILLAS [formerly Santa Clara]: Soledad, Cienfuegos, *Jack* 5492 (A, DS, F, P), 5642 (A, US), 6657 (A, DS, F, K, NY, US); *Howard* 6277 (GH, NY, US). Monte del Montanez, *González* 266 (A, IJ, MICH, NY). Castillo de Jagua, Cienfuegos, *Combs* 562 (F, GH, K, NY, P, US). "Banao Mts.," *Luna* 647 (NY). South of Sancti Spiritus, *Luna* 926 (NY). ORIENTE: Renté, Santiago Bay, *Clemente* 2887 (GH, IJ); *León* 9765 (GH, NY). Imías, *León* 12219 (GH). Orilla del Barro, near Guantánamo, *Hioram* 1830 (NY).

LOCAL NAME: Azulejo (Las Villas).

Thanks to Dr. Lyman B. Smith I have photographs of the two specimens of *Ateleia apetala* in the Herbarium Grisebachianum at Goettingen. One of those, bearing mature leaves, flowers, and immature fruits, annotated as number 2381, is here designated as lectotype. The other sheet, with floral buds and immature leaves, may or may

not be a true isotype. The other so-called "isotypes" cited above are of this species but apparently from various gatherings, as is the situation under many of Wright's numbers.

The specimens from Oriente have some pubescence on the leaflets and, presumably, are referable to var. *pubescens*. Unfortunately, I have not been able to locate a specimen of *Clemente* 3069, the type collection of *A. apetala* var. *pubescens*. The holotype, deposited at LS, may have been a unicate.

11. *Ateleia salicifolia* Mohlenbrock, *Webbia* 17: 159, figs. 3, 4. 1962.

Tree or shrub, to about 3.5 m. tall; leaves 11-19-foliolate, the axis to about 12 cm. long, subsericeous, glabrescent; leaflets with blades linear, 1.5-7.5 cm. long and 0.2-1.0 cm. broad, attenuate, the base cuneate, the upper surface nitid, glabrous, the lower surface glabrous or with sparse puberulence along the midvein, the tertiary venation reticulate, the secondary veins few, almost parallel with the midvein, the petiolules 1-2 mm. long, puberulent, glabrescent; flowers and fruit not known.

TYPE: *Jack* 6886, "On rocky ridge, Las Lagunas, Buenos Aires, about 2500 ft. alt.," Las Villas, Cuba (A). Isotype at NY.

DISTRIBUTION: Known only from the general area of the type collection, in dry forest on rocky slopes.

ADDITIONAL COLLECTIONS:

CUBA: LAS VILLAS: "Barren, rocky hillside, Rio San Juan," *Britton, Earle, & Wilson* 5884 (NY). "Rocky hillslope, ¼ mile west of Rio San Juan crossing," *Howard et al.* 376 (A). Las Vegas de Mataguá, Buenos Aires, *Jack* 7914 (NY). "Dry thickets on road to Tope de Collantes, Trinidad Mts.," *Alain* 6672 (NY).

This species, known only from sterile collections, suggests a narrow-leaved variant of *A. apetala*. Its chief distinction, other than leaflet shape, is in the steeply angled secondary veins.

12. *Ateleia ovata* Mohlenbrock, *Webbia* 17: 176, fig. 1, 14. 1962.

Tree, to about 25 m. tall; leaves 9-23-foliolate, the axis about 18 cm. long, tomentulose; leaflets with blades ovate-elliptic, 1-7 cm. and 1-3 cm. broad, acute or subacute, the base oblique, rounded to subcordate, the surface nitid, glabrous except for some puberulence along the midvein, the lower surface moderately pubescent with minute spreading or subcrispate hairs, usually glabrescent, the petiolules 2-3 mm. long, tomentulose; bracts deltoid, about 1 mm. long; flowers about 6 mm. long; calyx tomentulose, 2-2.5 mm. long; petal about 6 mm. long and 2 mm. wide, glabrous, cucullate; ovary ciliate along the lower margin and at the base, otherwise glabrous; fruit glabrous, about 2-2.5 cm. long and 1-1.4 cm. wide including wing about 1 mm. wide, the stipe about 5-7 mm. long; seed not seen.

TYPE: *Krukoff* 2060, Brazil, "On 'carrasco' rocky land. At Santarem, Goiás, along the upper Rio Tocantins," Apr. 18, 1933. (US). Isotypes at A, K, and US.

DISTRIBUTION: Known from Maranhão, Ceará, and Goiás, Brazil, in dry woods.

ADDITIONAL COLLECTIONS:

Brazil: MARANHÃO: "Ilha dos Botes, a duas léguas abaixo de Carolina, Rio Tocantins," *Pires & Black* 2016 (NY). CEARÁ: "Mata da Serrinha," *Guedes* 373 (NY). GOIÁS: "Right bank of Rio Tocantins between San Pedro de Alcântan and Carolina," *Burchell* 9865 (GII, K).

LOCAL NAME: Amarelão (Ceará).

This species exhibits some instability of stamen number. Flowers on the holotype, at US, have 7 stamens each; those on *Guedes* 373 have 11 stamens. This higher number is suspect and warrants further investigation. Perhaps there has been bifurcation of one stamen in each flower. If all 11 stamens are normal, however, possible inclusion of *Ateleia* in the Caesalpinioideae is indicated.

In general appearance *A. ovata* is very similar to *A. pterocarpa* from Mexico. Without knowing the country of origin it would be difficult to identify some of the specimens.

13. *Ateleia venezuelensis* Mohlenbrock, *Webbia* 17: 178, fig. 1. 1962.

Tree or shrub; leaves 13-17-foliolate, the axis tomentulose, about 12-17 cm. long; leaflets with blades elliptic-oblong, 2-7 cm. long, 1-3 cm. broad, obtuse to subacute, the base oblique, acute to rounded, the upper surface essentially glabrous but with some puberulence along the midvein, the lower surface moderately pubescent with lax or crispate hairs, glabrescent, the secondary veins moderately conspicuous, the petiolules 1.5-2 mm. long, tomentulose; bracts deltoid, about 1 mm. long; flowers 6-7 mm. long; calyx tomentulose, glabrescent, 1.5-2.5 mm. long; petal 6-7 mm. long, about 3 mm. broad, glabrous; ovary sparsely puberulent along lower margin and at base, otherwise glabrous; fruit (immature) ciliate along the lower margin, about 1.3 cm. long and 0.4 cm. wide, the wing about 1 mm. wide, the stipe puberulent, about 0.6 cm. long; mature fruit and seed not seen.

TYPE: *F. D. Smith* 260, "Cantaura, edge Seelinger's house," Anzoategui, Venezuela (US). Isotype at NY.

DISTRIBUTION: Known only from the type collection.

This species is generally similar to *A. ovata*. I have not been able to ascertain if the specimens cited were native or cultivated. If native, it is surprising that there are no other collections from the area.

14. *Ateleia herbert-smithii* Pittier, *Contr. U.S. Nat. Herb.* 20: 112, fig. 51. 1918.

Tree, to about 18 m. tall; leaves 7-13-foliolate, the axis puberulous, glabrescent, to about 24 cm. long; leaflets with blades ovate, 3-9.5 cm.

long and 2–4.5 cm. broad, attenuate-acuminate, the apex obtuse, the base subcordate or truncate, the upper surface essentially glabrous at maturity, the lower surface minutely pubescent with subappressed hairs, glabrescent, the secondary veins moderately conspicuous, the petiolules 4–8 mm. long, puberulent or subglabrous; bracts deltoid, 1 mm. long or less; flowers 7–8 mm. long; calyx puberulous or subglabrous, 2–3 mm. long; petal 7–8 mm. long and about 5 mm. broad, glabrous, sometimes expanded at anthesis; ovary tomentulose; fruit (immature) 1.5 cm. long and 0.6 cm. wide, the stipe 0.5 cm. long; mature fruit and seed not seen.

TYPE: *H. H. Smith* 817, Colombia, Magdalena, "5 mi. S. of Mamatoco" (US). Isotypes at A, BM, F, G, GH, K, L, MICH, US.

DISTRIBUTION: Known only from the type collection and, according to the collector's notes, "also found in fl. 3 mi. n. of Bonda."

This distinctive species has never been recollected. Two Colombian botanists, Dr. Armando Dugand and Dr. R. Romero-Castañeda, have unsuccessfully searched for living specimens. It well may be another rare endemic that has succumbed to human activity.

15. *Ateleia glazioveana* Baill. Bull. Soc. Linn. Paris 1: 306. 1882.

Shrub or small tree; leaves 20–31-foliolate, the axis about 15–40 cm. long, tomentulose, glabrescent; leaflets with blades ovate to lanceolate, 3–7 cm. long, 1–2.5 cm. broad, acute to attenuate, the base oblique, acute or one side somewhat rounded, the upper surface appressed-pubescent when young, glabrescent, the lower surface moderately pubescent with minute, appressed hairs, glabrescent, the tertiary venation reticulate, the petiolules 1–3 mm. long, tomentulose; flowers 5–6 mm. long; calyx 2–3.5 mm. long, moderately sericeous; petal 5–6 mm. long and about 4 mm. wide, cucullate; fruit glabrous, 3–3.5 cm. long including stipe about 0.7–1 cm. long, 1.4–1.8 cm. wide including wing about 1.5–2 cm. long and 2 mm. wide; seed black, compressed, 4–4.5 mm. long and 2.5–3 mm. wide.

TYPE: *Glaziov* 12565, Nova Friburgo, Rio de Janeiro, Brazil (P). Isotypes at A, F, K, NY, UC; F. M. Neg. 1889 ex B.

DISTRIBUTION: In dry woods of southern Brazil, Paraguay, and in northeastern Argentina.

ADDITIONAL COLLECTION:

PARAGUAY: Sierra de Maracayú, in altoplanitie Yeruti, *Hassler* 5755 (A, NY).

LOCAL NAMES: Timbó blanco, timbó raposa, timbó del campo (Argentina, fide Burkart).

Burkart (*Las Leguminosas Argentinas*, ed. 2, 206. 1952) mentions that *A. glazioveana* is found in Argentina, in Misiones, and the plants are said to be insecticidal and poisonous to cattle.

This species is readily distinguished from the others by its numerous, acuminate leaflets and relatively large pods.

Index Kewensis cites 1881 as the date of the original publication of this species but 1882 apparently is correct. Baillon presented the description of "*Un Ateleia brésilien*" at the "seance du 4 Janvier 1882" of the Société Linnéenne de Paris.

16. *Ateleia guaraya* Herzog, Fedde Repert. Sp. Nov. 7: 55. 1909.

Small tree; leaves 9-15-foliolate, the axis about 15-22 cm. long, tomentulose, glabrescent; leaflets with blades ovate or elliptic, about 4-7 cm. long, 2-3 cm. broad, acute or subacute, the base mostly asymmetrical, acute or one side rounded, the terminal leaflet essentially rhombic with cuneate base, the upper surface glabrous at maturity except for some fine pubescence along the midvein, the lower surface subsericeous with minute, appressed hairs, the tertiary venation reticulate, the petiolules 2-3 mm. long, tomentulose; complete flowers not seen but probably about 5 mm. long (on basis of persistent filaments about 5 mm. long); calyx 2 mm. long, sericeous; fruit glabrous except for puberulent stipe, 3-3.5 cm. long and 1.5 cm. wide including wing about 1 mm. wide and stipe 1 cm. long; seed not seen.

TYPE: Herzog 303, "in den Cusi-palmenwaldern der Misiones de Guarayos (Prov. Velasco) bei Urubicha," Bolivia (Z).

DISTRIBUTION: Known only from the type.

This species seems to be intermediate between *A. glazioveana* and *A. ovata*; the pubescence and fruit most resemble the former, the leaflet shape and number, the latter.

In his original description Herzog referred to the hairs on the lower surface of the leaflets as "pilis minimis inaequaliter bicuribus." On close examination, however, I find them not to be "2-legged" but attached at one end and so closely appressed in many cases as to be bent downward at the middle, appearing to be malpighiaceous in structure. The pellucid punctae mentioned by Herzog and stressed by Mohlenbrock are similar to those in other species of *Ateleia* and are not particularly transparent.

I am indebted to Prof. Dr. F. Markgraf, Director of the Botanischer Garten und Institut für Systematische Botanik der Universität Zürich, for lending me the type of *A. guaraya*.

Excluded Species

Ateleia peltaria D. Dietr. Syn. Pl. 4: 1219. 1847 = *Wiborgia fusca* Thunberg, as *Viborgia*, fide Harvey and Sonder, Flora Capensis 2: 91. 1862.

New Species

Ateleia tomentosa Rudd.

Collections of *Ateleia* and *Cyathostegia* cited

- ALAIN, BRO. (E. E. LIOGIER), ET AL. 180. *A. apetala*
 2361. *A. gummifera*
 2580. *A. gummifera*
 2774. *A. apetala*
 2906. *A. gummifera*
 2955. *A. apetala*
 5227. *A. gummifera*
 6672. *A. salicifolia*
- ARSÉNE, BRO. G. (A. G. J. BROUARD)
2790. *A. arsenii*
 6655. *A. arsenii*
- ATCHISON, E.
274. *A. gummifera*
- BAKER, C. F. AND DONOVAN
4420. *A. gummifera*
- BERTERO, C. G.
- s.n. *A. gummifera*
- BOURGEAU, E.
1899. *A. pterocarpa*
- BRACE, L. J. K.
81. *A. gummifera*
 82. *A. gummifera*
 536. *A. gummifera*
 5238. *A. gummifera*
 6964. *A. gummifera*
 6985. *A. gummifera*
- BREEDLOVE, D. E.
6487. *A. pterocarpa*
 7644. *A. pterocarpa*
 11395. *A. tomentosa*
- BRITTON, E.
6461. *A. gummifera*
- BRITTON, N. L., ET AL.
87. *A. apetala*
- BUCH, W.
1460. *A. gummifera*
 2065. *A. gummifera*
- BURCHELL, W. J.
9865. *A. ovata*
- CASTILLO, A.
32. *A. gummifera*
- CLEMENTE, BRO. (A. C. TÉTEAU)
2044. *A. gummifera*
 2887. *A. apetala*
 3043. *A. gummifera*
 3069. *A. apetala* var. *pubescens*
 4841. *A. gummifera*
 5121. *A. gummifera*
 6272. *A. gummifera*
 7029. *A. gummifera*
- COMBS, R.
562. *A. apetala*
- CONTRERAS, E.
555. *A. gummifera*
- CURTISS, A. H.
37. *A. gummifera*
- DUPUY
- s.n. *A. microcarpa*
- EKMAN, E. L.
3239. *A. gummifera*
 4857. *A. gummifera*
 6290. *A. gummifera*

- EKMAN, E. L.—Continued
 7532. *A. gummifera*
 9178. *A. gummifera*
 10559. *A. apetala*
 12006. *A. gummifera*
 ESPINOSA B., M. R.
 854. *C. matthewsii*
 FEDDEMA, C. (see McVAUGH)
 FERREYRA, R.
 8911a. *C. matthewsii*
 15648. *C. matthewsii*
 FERRIS, R. S.
 5573. *A. insularis*
 5742. *A. insularis*
 FISHER, G. L.
 1884. *A. gummifera*
 FOSBERG, F. R., and GILER, M. A.
 22904. *C. matthewsii*
 FUERTES, PADRE M.
 1331. *A. gummifera*
 s.n. *A. gummifera*
 GLAZIOU, A.
 12565. *A. glazioveana*
 GONZÁLES, A.
 266. *A. apetala*
 GONZÁLEZ QUINTERO, L.
 533. *A. pterocarpa*
 GUEDES, T. N.
 373. *A. ovata*
 HASSLER, E.
 5755. *A. glazioveana*
 HERZOG, T. K. J.
 303. *A. guaraya*
 HINTON, G. B.
 407. *A. arsenii*
 3421. *A. arsenii*
 3526. *A. arsenii*
 4240. *A. arsenii*
 5286. *A. arsenii*
 6093. *A. arsenii*
 6158. *A. arsenii*
 7621. *A. arsenii*
- HIORAM, BRO. (J. F. LAGORCE)
 1830. *A. apetala*
 1970. *A. gummifera*
 HIRSCH, P.
 s.n. *C. matthewsii*
 HITCHCOCK, A. S.
 21333. *C. matthewsii*
 HOWARD, R. A., ET AL.
 376. *A. salicifolia*
 6277. *A. apetala*
 8901. *A. gummifera*
 HOWELL, J. T.
 10471. *A. insularis*
 JACK, J. G.
 5492. *A. apetala*
 5642. *A. apetala*
 6657. *A. apetala*
 6886. *A. salicifolia*
 7564. *A. gummifera*
 7914. *A. salicifolia*
 8431. *A. gummifera*
 JIMÉNEZ, J. DE JS. (BY E. MARCANO)
 4091. *A. gummifera*
 KILLIP, E. P.
 13811. *A. gummifera*
 KRUKOFF, B. A.
 2060. *A. ovata*
 LEDIN, R. B.
 s.n. *A. apetala*
 LEÓN, BRO. (J. S. SAUGET), ET AL.
 3735. *A. gummifera*
 4122. *A. gummifera*
 5695. *A. gummifera*
 8467. *A. gummifera*
 8815. *A. apetala*
 9765. *A. apetala*
 12219. *A. apetala*
 13689. *A. apetala*
 20437. *A. gummifera*
 20438. *A. gummifera*
 LINDEN, J. J.
 2044. *A. gummifera*

- LÓPEZ F., M.
 216. *A. gummifera*
 887. *A. gummifera*
- LUNA, A.
 647. *A. apetala*
 926. *A. apetala*
- LUNDELL, C. L.
 680. *A. gummifera*
 849. *A. gummifera*
 862. *A. gummifera*
- MALTBY, F. G.
 73. *A. insularis*
- MARCANO, E. (see JIMÉNEZ)
 MASON, H. L.
 1843. *A. insularis*
- MATTHEWS, A.
 s.n. *C. matthewsii*
- MATUDA, E.
 1588. *A. pterocarpa*
 5833. *A. pterocarpa*
 15833. *A. pterocarpa*
 37472. *A. arsenii*
- McVAUGH, R. (BY C. FEDDEMA)
 21275A. *A. standleyana*
- MELL, C. D.
 15. *A. pterocarpa*
- MIRANDA, F.
 5993. *A. pterocarpa*
 6029. *A. pterocarpa*
 6435. *A. pterocarpa*
- MORTON, C. V., ET AL.
 2998. *A. gummifera*
 9198. *A. gummifera*
 9752. *A. gummifera*
 9891. *A. gummifera*
- NASH, G. V., and TAYLOR, N.
 1658. *A. gummifera*
- NELSON, E. W.
 4186. *A. insularis*
- PEARCE, R.
 s.n. *C. matthewsii*
- PECK, M. E.
 237. *A. gummifera*
- PIRES, J. M., and BLACK, G. A.
 2016. *A. ovata*
- PROCTOR, G. R.
 9017. *A. gummifera*
- PURPUS, C. A.
 9248. *A. albolutescens*
 10291. *A. albolutescens*
 10544. *A. albolutescens*
 10549. *A. albolutescens*
 10577. *A. albolutescens*
- ROSE, J. N., ET AL.
 14474. *A. standleyana*
 23338. *C. matthewsii*
- RUGEL, F.
 785. *A. apetala*
 800. *A. apetala*
- RZEDOWSKI, J.
 15173. *A. standleyana*
 17870. *A. standleyana*
- SALAZAR, F.
 s.n. *A. pterocarpa*
 s.n. *A. truncata*
- SCHIPP, W. A.
 705. *A. gummifera*
- SESSÉ, M., and MOCIÑO, J. M.
 2017. *A. pterocarpa*
 s.n. *A. pterocarpa*
- SHAFER, J. A.
 569. *A. gummifera*
 678. *A. gummifera*
 1032. *A. gummifera*
 1223. *A. gummifera*
 2441. *A. gummifera*
 2472. *A. gummifera*
 2556. *A. gummifera*
 2596. *A. gummifera*
 2622. *A. gummifera*
 7905. *A. gummifera*
 10517. *A. gummifera*

- | | |
|---|--|
| <p>SMALL, J. K., and CARTER, J. J.
 8714. <i>A. gummifera</i>
 8784. <i>A. gummifera</i></p> <p>SMITH, F. D.
 260. <i>A. venezuelensis</i></p> <p>SMITH, H. H.
 817. <i>A. herbert-smithii</i></p> <p>SOHNS, E. R.
 1639. <i>A. pterocarpa</i></p> <p>SOUSA S., M.
 1319. <i>A. pterocarpus</i>
 2376. <i>A. pterocarpus</i></p> <p>STEYERMARK, J. A.
 54839. <i>C. matthewsii</i>
 54840. <i>C. matthewsii</i></p> <p>TOVAR, O.
 3708. <i>C. matthewsii</i></p> <p>VALEUR, E. J.
 715. <i>A. microcarpa</i></p> <p>VAN HERMANN, H. A.
 4420. <i>A. gummifera</i></p> | <p>VARGAS, C. G.
 2381. <i>C. matthewsii</i></p> <p>WEBERBAUER, A.
 6204. <i>C. matthewsii</i>
 7216. <i>C. weberbaueri</i></p> <p>WEST, J.
 3703. <i>C. matthewsii</i></p> <p>WILSON, P.
 7722. <i>A. gummifera</i>
 9137. <i>A. gummifera</i>
 9492. <i>A. gummifera</i></p> <p>WOOD, C., and ATCHISON, E.
 7447. <i>A. gummifera</i></p> <p>WOYTKOWSKI, F.
 5601. <i>C. matthewsii</i></p> <p>WRIGHT, C., ET AL.
 98. <i>A. microcarpa</i>
 144. <i>A. gummifera</i>
 2381. <i>A. apetala</i></p> |
|---|--|

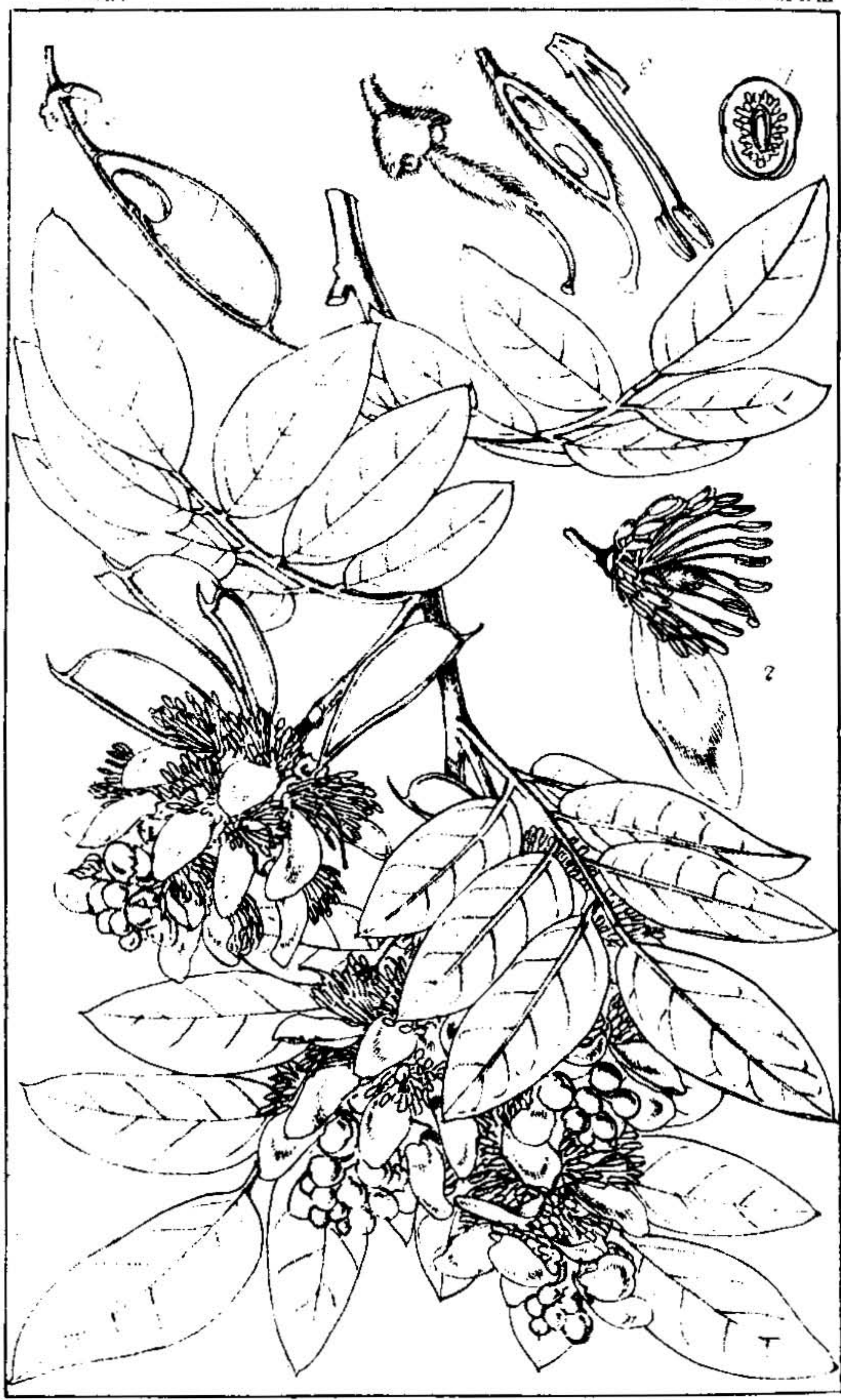
Index

(Synonyms in *italic*. Page numbers of principal entries in **boldface**.)

- amarelão, 404
Amorpha, 396
 fruticosa, 396
Arcoa, 391
Ateleia, 385, 386, 387, 388, **391**, 406
 albolutescens, 393, **397**
 apetala, 392, 393, **402**, 403
 var. *pubescens*, 402, 403
 arsenii, 386, 392, **393**
 cubensis, 398, 400, 401
 glazioveana, 392, **405**, 406
 guaraya, 392, **406**
 gummifera, 392, 393, 396, 397, **398**,
 400
 var. *cubensis*, 398
 herbert-smithii, 392, **404**
 insularis, 392, **394**
 microcarpa, 392, 400, 401
 multijuga, 398
 ovata, 392, **403**, 404, 406
 parvifolia, 398, 399, 400
 pellaria, 406
 pterocarpa, 385, 392, **395**, 397, 398,
 400, 404
 revoluta, 401
 salicifolia, 393, **403**
 standleyana, 392, 394, **395**
 tomentosa, 392, 396, **397**, 406
 truncata, 392, **394**
 tumida, 398, 400
 venezuelensis, 393, **404**
azota potranca, 401
azulejo, 402
balsamo hediondo, 400
Bauhinia, 391
Cadieae, 387
Caesalpinioideae, 385, 386, 387, 388,
 391, 404
Ceratonia, 391
cerezo, 400
Cyathostegia, 385, 386, 387, **388**, 389,
 390, 391
 matthewsii, 388, **389**
 weberbaueri, 389, **390**
Dalbergia gummifera, 398
Dalbergieae, 385
Fabaceae, 385, 386
Faboideae, 385, 388, 391
haba de venado, 393
huapinole, 396
jediondillo, 395
Leguminosae, 385, 387
Papilionaceae, 385, 386
Papilionatae, 385
Peltophorum, 391
piojillo, 395
Pterocarpus, 385
 ateleia, 385, 391, 395
 section *Ateleia*, 385, 391
 gummifer, 398, 400
 microcarpus, 401
Sophoreae, 385, 386, 391
Swartzia, 386, 388
 series *Cyathocalycinae*, 386, 388
 section *Cyathostegia*, 386, 388
 matthewsii, 386, 388, 389
 multijuga, 397, 398, 400
 weberbaueri, 389
Swartzieae, 386, 387
timbó blanco, 405
timbó del campo, 405
timbó raposa, 405
Tounatea, 386
 section *Cyathostegia* 386, 388
 matthewsii, 389
Tounateae, 386
tush che, 400
Viborgia, 406
Wiborgia fusca, 406

Plates

1907



W. H. Fernald del. et lit.

WALTER MATHER, F.R.S.

Illustration of *Scaevola matherii* Benth. (*Cyathostema matherii* (Benth.) Seber) from the original publication of the species.



Prof. Dr. A. WEBERBAUER, *Flora von Peru.*

26. SEPTEMBER 1866

No 11

Type of *Swartzia weberbaueri* Harms (= *Cyathostegia weberbaueri* (Harms) Schery); F. M.
Neg. 1866 ex B.



Type of *Ateleia pterocarpa* Moc. & Sessé ex D. Dietr.; F. M. Neg 30639 ex G-DC.



2465330

PLANTS OF CHIAPAS, MEXICO 1135

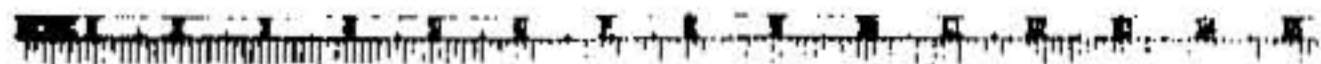
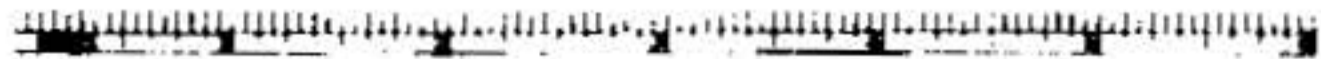
Ateleia tomentosa Rudd

Tree 40 feet tall.
Wooded slope 3 miles southwest of Finola Las
Rosas along road to Soyatitán. Municipio of
Venustiano Carranza.

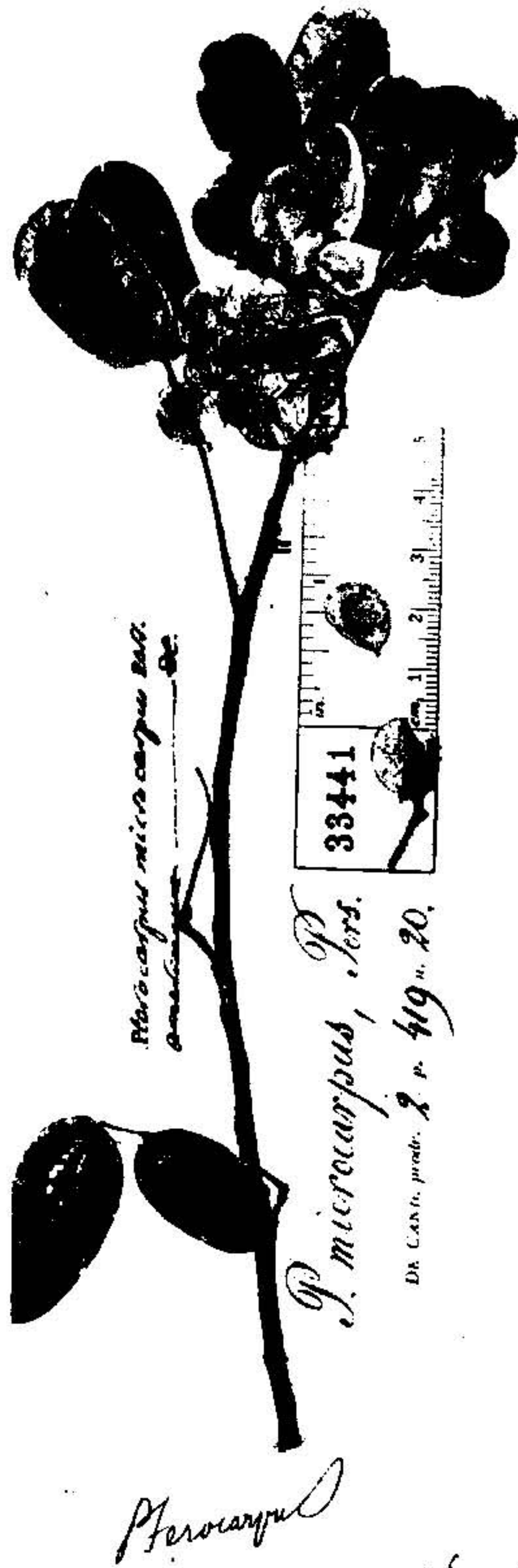
Elevation 4200 feet.

D. E. Breedlove 11395

27 July 1965



Type of *Ateleia tomentosa* Rudd; insert: fruit, approximately natural size.



Isotype of *Pterocarpus microcarpus* Pers. (= *Ateleia microcarpa* (Pers.) D. Dietr.); F. M. Neg. 33441 ex G-DC.



Ateleia

1387
Ateleia apetala
 Griseb.
 No. 144. 1863.

Leguminosae Griseb.
 (fleshy) Catal. plant. ...
 Bello 20



Herb. No. 1387

Lectotype of *Ateleia apetala* Griseb.

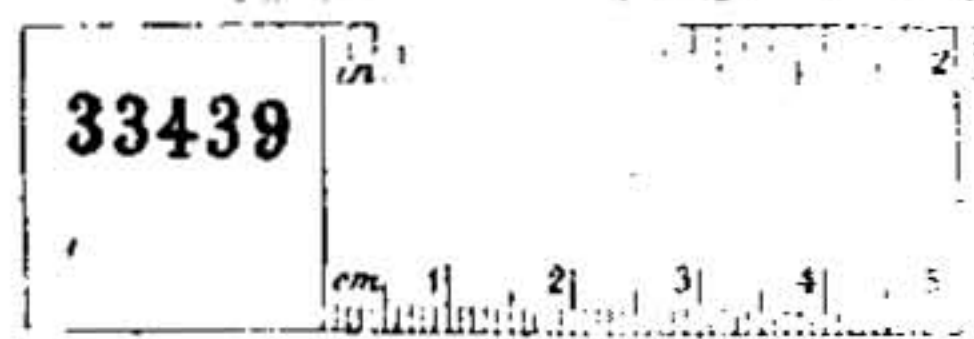


Pterocarpus gummifer
 DeCandolle
 1825

Pterocarpus gummifer DC.

P. gummifer, Bert.

DE CAND. prob. 2 p. 419 n. 21.



Type of *Pterocarpus gummifer* Bert. ex DC. (= *Ateleia gummifera* (DC.) D. Dietr.); F. M. Neg. 33439 ex G-DC.



Specimen of *Ateleia cubensis* Griseb. (= *A. gummifera* (DC.) D. Dietr.) cited in publication of nom. nov. for *Scaevola multijuga* A. Rich.



Swartzia multijuga Nob

Illustration of *Swartzia multijuga* A. Rich. (= *Ateleia gummifera* (DC.) D. Dietr.) from the original publication of the species.