

NEW SPECIES AND NEW RECORDS OF PLANTS IN GUIANA

RICHARD S. COWAN AND COLLABORATORS

INTRODUCTION¹

For several years, The New York Botanical Garden has conducted a study of vegetation overlying certain ferruginous areas principally in Venezuela. During the winter of 1954-55, field work was organized to continue reconnaissance of plant-cover growing on iron-cap or ore-bodies in northeastern Brazil, French Guiana, Suriname, and British Guiana. In addition to studies in iron-bearing localities, observations and some statistical studies were made on manganiferous and bauxitic deposits in the region of Guiana.

Dr. Cowan spent the period October-March in the field. We were together for the first three weeks, and again in the fore-part of January. Dr. Jan C. Lindeman of Utrecht accompanied Dr. Cowan for two weeks to Nassau-gebergte in Suriname. Independently I visited Nassau Mountains and Moengo for three weeks in March.

The following is a preliminary report, edited by Dr. Cowan, of new species and range extensions of importance which have been recognized in some of the collections obtained during the 1954-55 field studies.

Financial support, facilities, and assistance of the following companies made this field operation possible: Indústria e Comércio de Minérios, S. A., Belém, Brazil; Suriname Bauxite Company, Aluminum Company of America, Demerara Bauxite Company, Aluminium Company of Canada, African Manganese Company, Union Carbide and Carbon Company, and United States Steel Company. In French Guiana, we were aided by members of the Department of Forestry and Mines. In Suriname, the Departments of Forests and Geology were of the greatest assistance in facilitating our work in that colony. The British Guiana Forest Service contributed greatly to our studies by their gift of the valuable time of Mr. Jonas Boyan whose store of Arawak-forest lore and knowledge of the natural history of that region is unsurpassed. Many individuals contributed directly or indirectly to our efforts, and while not all can be mentioned here, it is impossible to forget the interest and sympathetic help we received from the former Governor of the Territory of Amapá, Brazil, Col. Janary Gentil Nunes, now in charge of mineral exploration and development for the federal government of Brazil.

Particularly we wish to express appreciation to the officials of the Alcoa Steamship Company, who generously provided pleasurable transportation for Mrs. Maguire and me to British Guiana and Suriname and return, on their well-appointed Caribbean passenger-freighters, and who very patiently and efficiently brought together our precious plant collections at various ports of call and delivered them to us here in New York.

Abbreviations used for herbaria in which specimens are deposited are those of Lanjown and Staffeu, *Index Herbariorum*.

¹By Bassett Maguire.

RAPATEACEAE²

Spathanthus unilateralis (Rudge) Desv. Ann. Sci. Nat. 13: 45. pl. 4, f. 1. 1828.

S. unilateralis has long been a very well-known terrestrial species of widespread distribution in the lowlands of coastal Guiana from British Guiana to Brazil. In 1906 Brown proposed the name *S. jenmani* to accommodate a local population of the Potaro Gorge which differed essentially by abruptly contracted, subcordate blades and pronounced petioles from the more prevalent form, in which the blade is characteristically gradually narrowed to the usually much shorter petiole. Now Dr. Cowan has collected specimens from a population which seems to be localized in central Guiana in Amapá near the Oyapock River on the French Guiana—Brazilian frontier and in certain areas of French Guiana, in which the leaf-blades are abruptly obtusely contracted but are neither cordate nor subcordate.

Otherwise, there is no habitual or floral modification or distinction separating these two populations from the larger body of *S. unilateralis*. Neither can properly be considered specifically distinct from it. Both are therefore, relegated to varietal status.

Leaf-blades gradually narrowed to an acute, usually attenuate base; petioles 5–20 cm long or essentially lacking.

var. *unilateralis*.

Leaf-blades abruptly contracted at the base; petioles manifest, 15–40 cm long.

Leaf-blades cordate or subcordate at the base.

var. *jenmani*.

Leaf-blades inequilaterally obtusely contracted at the base.

var. *abruptus*.

Spathanthus unilateralis var. *unilateralis*.

Terrestrial perennial herbs of low altitude, swampy rain-forest; British Guiana to Pará and Amazonas, Brazil.

Spathanthus unilateralis var. *jenmani* (N. E. Brown) Maguire, stat. nov.

Spathanthus jenmani N. E. Brown, Kew Bull. 1906: 6. 1906.

TYPE: Waratuk Path, Potaro River, British Guiana, October 1898, *Jenman* 7468, (holotype K; isotype NY).

Wet sandy places at low altitudes; known only from the Potaro River Gorge, British Guiana, where the variant is generally but locally confined and of consistent morphological form.

Spathanthus unilateralis var. *abruptus* Maguire, var. nov.

Var. *unilateralis* similis sed laminis abrupte et inaequilateraliter contractis; petiolis valde manifestis, 15–40 cm longis.

TYPE: herb of wet to moist places; spathe white except green apical portion, flowers yellow, locally frequent, forest behind Oyapock Airfield, Amapá, Brazil, December 7, 1954, *R. S. Cowan* 38701 (NY).

Additional collection: large herb, frequent along road in forest, 14–16 km. towards Cayenne from St. Laurent, French Guiana, Dec. 20, 1954, *Cowan* 38916.

Swampy or areas in low altitude rain-forest, Central Guiana, the region of the Oyapock River in Amapá, Brazil, and French Guiana. This variant is a geographical analogue of var. *jenmani*.

²By Bassett Maguire.

PIPERACEAE³*Ottonia cowanii* Yuncker, sp. nov.

Suffrutex ligno molli, internodiis superis dissite pubescentibus glanduloso-punctatis; foliis elliptico-ovatis abrupte acuminatis basi inaequaliter rotundatis obtusis subacutisve supra glabris venis subtus dissite adpresse hirtulis fere totis vel quartum superum pinnatim venosis nerviis utrinque 5 vel 6 sub margine laqueatis; petiolo ad laminam vaginato-alato; racemi adhuc immaturis brevi bracteis triangulari-subpeltatis margine breviter fimbriatis, pedicellis ovarii hirtulis.

A soft-wooded shrub, about 50 cm tall, the upper internodes rather slender, 3-8 cm long, thinly pubescent, glabrescent, glandular-dotted. Leaves "dark-green above, paler below" when growing, elliptic-ovate, rather abruptly acuminate, the base inequilaterally rounded, obtuse or acutish, one side about 2 mm shorter at the petiole, 9-10 cm long and 4-5 cm wide, pale-glandular-dotted on both sides, glabrous above, the nerves beneath thinly appressed-hirtellous, pinnately nerved to the upper fourth or throughout, the nerves about 5 or 6 on each side, submarginally loop-connected, with slender, cross-connecting-anastomosing nervules, finely pellucid-dotted, drying rather thin, subtranslucent, the petioles from 2-3 mm long above to 1 cm on lower leaves, thinly hirtellous, vaginate-winged to the blade on lower leaves. Racemes (?) as yet young, 1.5 cm long and 2 mm thick, apiculate, the peduncle slender, scarcely 1 cm long, thinly hirtellous, the bracts triangular-subpeltate, narrowly fringed; stamens 4, closely appressed about the as yet very immature ovary, the ovary on a hirtellous pedicel.

TYPE: herb 0.5 m tall. Leaves dark green above, paler below. Frequent in forest, Chumbo Ore Body, alt. ca. 175 m, Serra do Navio, Rio Amapari, Amapá, Brazil, November 1, 1954, *Bassett Maguire & Richard S. Cowan 38076* (NY).

The characters of the ovary and mature fruit are lacking because of the immaturity of the available racemes (?). A few of the ovaries, however, show what is believed to represent pedicels characteristic of the genus *Ottonia*. It has not been possible to match this with any of the known species. It appears to resemble *O. padifolia* Kunth in certain characters but differs in its pubescence, fewer, lateral nerves, mostly longer petioles, etc. The small racemes and relatively small number of lateral nerves appear to be distinctive features.

Ottonia maguirei Yuncker, sp. nov.

Suffrutex ligno molli, internodiis superis conferte crispo-pubescentibus, pilis subretrois; foliis oblongo-ellipticis vel lanceolato-ellipticis apice sensim acuminatis basi rotundatis cordulatis vel cordatis supra glabris subtus ad venas conferte crispo-hirtulis, margine omnino conferte ciliolatis, ad media laminam vel totis pinnatim venosis, nerviis utrinque pro more 5 vel 6, petiolo ad laminam vaginato-alato; racemi adhuc immaturi, bracteis triangulari-subpeltatis, margine fimbriatis, pedicellis ovarii glabris.

A soft-wooded subshrub, about 50 cm tall, the upper internodes short above, lengthening downward, densely crisp-pubescent, the hairs subreflexed. Leaves oblong-elliptic or lance-elliptic, gradually acuminate, the base somewhat inequilateral, rounded cordulate or the larger leaves cordate, one side about 1-2 mm shorter at the petiole, 10-14 cm long and 3-5 cm wide, glabrous above, the nerves beneath densely crisp-hirtellous, the hairs subappressed, pale-glandular-dotted, the margin strongly ciliate throughout, pinnately nerved to the middle or sometimes throughout, the nerves commonly 5 or 6 on each side, submargin-

³By T. G. Yuncker.

ally loop-connected, when nerved to about the middle the uppermost lateral nerves connected with the midrib with cross-connecting nervules upward, drying rather thin, translucent, densely minutely pellucid-dotted, the petiole becoming about 1 cm long, densely crisp-pubescent, vaginate-winged to the blade. Racemes (?) as yet immature, 2 cm long and 2 mm thick, the peduncle about 5 mm long, densely crisp-pubescent, the bracts triangular-subpeltate, marginally fringed; stamens 4, closely appressed about the immature, globose (?) ovary, the ovary pedicellate, the pedicel glabrous.

TYPE: herb 0.5 m tall. Heavily forested hills, alt. ca. 175 m, Chumbo Ore Body, Serra do Navio, Rio Amapari, Amapá, Brazil, November 1, 1954, *Bassett Maguire & Richard S. Cowan* 38079 (NY).

The inflorescences on the available material of this, as well as of *O. cowanii*, are immature. Careful dissection, however, reveals, it is believed, that the flowers are pedicellate, thus showing their relationship to the genus *Ottonia* which is characterized by racemose inflorescences. It has not been possible to match either of these species with any of the known species of either *Piper* or *Ottonia*. The lateral nerves are fewer and they arise at a sharper angle with the midrib that is customary in known species of *Ottonia*. The smallness of the plants is also noteworthy.

***Peperomia cowanii* Yuncker, sp. nov.**

Herba carnosa assurgens, caule dissite puberulis; foliis supero oppositis infero ternatis ellipticis, apice angustatis longe acuminatis, basi cuneatis, supra in costa dissite hirtulo subtus glabris palmatim 3-5-nerviis; spicis terminalibus axillaribusque, bracteis ovatis acutis peltatis; drupa globosa acuminata, stigmatem apicali.

A moderate-sized succulent herb. Stem 2-3 mm thick at the base when dry, decumbent and rooting at the lower nodes, branching from the base, thinly puberulent, the hairs upwardly curved, the internodes 1-3 cm long above to 6-9 cm near the base, drying somewhat glossy and yellowish. Leaves commonly opposite above, ternate below, elliptic, the apex narrowly long-acuminate, the tip bluntly rounded, the base cuneate, 1.5-2.2 cm wide and 5.5-7 cm long, thinly hirtellous above, at least along the midrib, glabrous beneath, the tip sparsely bristly hirtellous, palmately 3- or 5-nerved, if 5-nerved the outermost pair of lateral nerves very slender and inconspicuous, the midrib conspicuous, with numerous slender cross-connecting-anastomosing nervules and small areoles as viewed by transmitted light, drying rather firm, the margin revolute, the petiole 3-5 mm long, moderately hirtellous on the flattened upper side. Spikes terminal and axillary, 1-2 mm thick and 12-14 cm long, the peduncle scarcely 1 cm long, thinly hirtellous, the bracts ovate, pointed, peltate, the drupe about 0.9 mm long, globose, with curved, strongly subulate, style-like beak, the stigma apical.

TYPE: herb growing over bare boulders. Frequent in forest on slopes of Macaco Ore Body, Serra do Navio, alt. ca. 200 m, Rio Amapari, Amapá, Brazil, November 10, 1954, *Richard S. Cowan* 38219 (NY).

This species, which belongs in the subgenus *Micropiper*, bears some resemblance to *P. megapotamica* Dahlst. but differs in its proportionately narrower leaves with more slenderly attenuate apex. It also differs from *P. pachydermis* C. DC. of east-central Brazil in its puberulence, short peduncles, and attenuately pointed leaves.

***Piper amapense* Yuncker, sp. nov.**

Arbuscula parva subglabra; foliis oblongo-ellipticis sublanceolatisve, apice abrupte acuminatis, basi inaequilateraliter rotundatis, latere altero quam cetero

breviori supra glabris subtus in venis minute puberulis a tertio supero deorsum pinnatim venosis, nerviis utrinque 5 vel 6 sub margine laqueatis, petiolo glabro ad laminam vaginato-alato; drupa plus minusve e latere compressa apice rotundata, stigmatibus lanceolatis sessilibus.

A small, essentially glabrous tree, 1.75 m tall. Leaves "thick, pale beneath," oblong-elliptic or sub lanceolate, the apex abruptly short-acuminate, the base rounded, inequilateral, one side gradually rounded, 3-5 mm shorter and abruptly acute at the petiole, the longer side abruptly rounded, obtuse, 7.5-9.5 cm wide and 20-24 cm long, pinnately nerved to the upper third, the nerves mostly 5 or 6 on each side, with cross-connecting-anastomosing nervules, the areoles comparatively large, submarginally loop-connected, glabrous above, the smaller nervules beneath minutely puberulent, drying firm, opaque, the lower surface light brown, the petiole 2.5-4.5 cm long, glabrous, vaginate and narrowly winged to the blade. Spikes 5 mm thick and 7 cm long, the peduncle slender, glabrous, 1.8 cm long, the bracts triangular-subpeltate, fringed, the drupe obovoid, round, or somewhat flattened laterally, the apex rounded, rather loose when mature, the stigmas lanceolate, sessile.

TYPE: tree 1.75 m tall. Leaves thick, pale below. Spikes green. Infrequent in forest behind Oyapock Airfield, Amapá, Brazil, December 7, 1954, *Richard S. Cowan 38698* (NY).

The small, treelike plants with comparatively large leaves, and petioles vaginate to the blade are characteristic features of this species. It resembles *P. diospyrifolium* Kunth of central Brazil to some extent but differs in the more oblong and proportionally longer leaves with more rounded, inequilateral base.

***Piper solutidrupum* Yuncker, sp. nov.**

Suffrutex ligno molli glaber; foliis oblongo-ellipticis vel elliptico-suboblanceolatis, apice abrupte acuminatis, basi rotundatis subaequilateraliter cordulatis a medio infero pinnatim venosis, nerviis ca. utrinque 5 sub margine laqueatis, petiolo ad laminam vaginato-alato; spicis apiculatis, pedunculo gracili, bracteis triangulari-subpeltatis fimbriatis; drupa ovoidea subacuminata, stigmatibus parvis sessilibus.

A soft-wooded, glabrous, herb-like, branching shrub 1 m tall, the upper internodes slender, 2-15 cm long. Leaves oblong-elliptic or elliptic-suboblanceolate, the apex abruptly acuminate, gradually narrowing to the rounded, subequilateral, strongly cordulate base, the lateral margins meeting over the petiole, 5-6 cm wide and 14-17 cm long, pinnately nerved to about the middle, the nerves about 5 on each side, with slender cross-connecting-anastomosing nervules, the uppermost pair of lateral nerves arising near the middle of the blade, connected with the stout midrib upward with numerous, slender, secondary nerves, the nerves submarginally loop-connected, drying membranous, pale glandular-dotted beneath, translucent, finely pellucid-dotted, the petiole up to about 1 cm long, vaginate and strongly winged to the blade. Spikes 5 mm thick and 4-5 cm long, apiculate, the beak 2-3 mm long, the peduncle slender, 2 cm long, slightly curved, the bracts triangular-subpeltate, marginally fringed, the drupes annularly and loosely arranged, ovoid, pointed but scarcely stylose, the stigmas small.

TYPE: herb 1 m tall. Forest floor in dense forest on lower S. E.-slopes of Chumbo Ore Body, alt. ca. 150 m, Serra do Navio, Rio Amapari, Amapá, Brazil, November 1, 1954, *Bassett Maguire & Richard S. Cowan 38070* (NY).

The small, soft-wooded, glabrous plants, with leaves about 3 times longer than wide, with strongly cordulate base and prominent nerves, and loosely and annularly arranged drupes characterize this species.

Piper viticaule Yuncker, sp. nov.

Frutex scandens ligno molli, caule villosa, pilis retrorsis; foliis lanceolatis, apice sensim acutis, basi rotundato-truncatis, ad medium pinnatim venosis, nerviis utrinque 4 vel 5 sub margine laqueatis, supra ad costam pubescentibus vel glabris, venis in laminae facie infera pubescentibus, petiolo fere ad medium vaginato; spicis adhuc immaturis.

A soft-wooded vine. Stem villous, the hairs reflexed, 0.5–1 mm long, the internodes 5–8 cm or more long. Leaves lanceolate, gradually narrowing to the acute apex, the base rounded-truncate, or shallowly cordate, somewhat inequilateral with one side about 1 mm longer at the petiole, 3–3.5 cm wide and 7.5–9.5 cm long, pinnately nerved to about the middle of the blade, the nerves 4 or 5 on each side, with cross-connecting-anastomosing nervules, the uppermost pair of lateral nerves cross-connected with the midrib upward, submarginally loop-connected, thinly hairy above along the midrib or glabrous, the nerves beneath pubescent, the hairs somewhat appressed upwardly, the apex and margin lacking ciliation, the petiole 10–12 mm long, vaginate to near the middle or above, scarcely winged, reflexed-pubescent. Spikes as yet young, 3 mm thick and 1–1.5 cm long, the peduncle stout, 5 mm long, crisp-pubescent, the bracts triangular-subpelate, marginally fringed, the ovary ovoid, bristly-hairy at the apex, the stigmas ligulate.

TYPE: herbaceous vine. Spikes yellow. Infrequent in high forest, alt. 225–270 m, Montagne de Kaw, French Guiana, December 13, 1954, *Richard S. Cowan 38788* (NY).

The soft-wooded vine-like plant with reflexed pubescence and rather small, lanceolate leaves, and small spikes with bearded ovaries are distinctive features of this species which appears to bear no close resemblance to other known species.

ANNONACEAE⁴**Guatteria microsperma** R.E.Fr., sp. nov.

Arbor parva (6–8 m alta); ramuli juniores laeves glaberrimi; internodia 1.5–3 cm longa. Foliorum petiolus incrassatus, saepe curvatus, 5–7 mm longus; lamina membranacea, glaberrima, oblanceolata vel oblongo-lanceolata, basin versus longe angustata et in petiolum longe decurrens, apice in cuspidem latam obtusam 1–2 cm longam subsensim contracta, 12–20 cm longa et 4–7 cm lata; costa supra impressa, subtus valde prominens, teres glaber et laevis; nervi laterales I. supra parum conspicui, in utroque latere 15–18, sub angulo fere 90° exeuntes, sursum curvati et 4–5 mm intra marginem regulariter conjuncti, supra parum conspicui, subtus valde prominentes. (Flores ignoti.) Fructus 10–12 mm longe stipitatus, pedunculo rigido glaberrimo et prope basin articulado sustentus; monocarpia insigniter parva, nigra, glaberrima, ovoidea, apice rotundata et interdum apiculo minuto instructa, 6–7 mm longa et ca. 4 mm crassa. Semina monocarpium forma, testacea.

TYPE: *Richard S. Cowan 38259*, occasional tree 6 m tall. Fruits immature, pale green. North slopes of Observatorio Ore Body, primary forest, ca. 200 m alt., Serra do Navio, Rio Amapari, Territorio do Amapá, Brazil, November 11, 1954 (Holotype S). Paratypes: Same locality, *Cowan 38209*; frequent in forest along trail to Serra do Viado, Rio Amapari, Terr. do Amapá, Brazil, Nov. 17, 1954, *Cowan 38404*.

The ample material available of this species (three separate collections) unfortunately lacks flowers, but every specimen bears plenty of fruit. The ab-

⁴By R. E. Fries.

sence of flowers makes it difficult to decide with any certainty to which section of the genus *Gutteria* this species belongs. Its leaf-shape and other details indicate, however, that it is a species of section *Tylodiscus*; but this can hardly be adequately checked without an examination of the structure of its stamina, which is highly desirable but not possible at present owing to the said absence of flowers. Nevertheless, its vegetative parts are so like those of *Gutteria parviflora* R.E.Fr., a species of section *Tylodiscus*, that it is probably justifiable to regard the two as very closely related. It differs, however, from the last-named species in the shape of its leaves, which are narrower, gradually tapering towards the base, and more decurrent. As in *G. parviflora*, the tip of the leaf-blade of this new species is fairly sharply set off, but broad and rounded instead of narrow and sharply pointed as in *G. parviflora*. The under sides of the leaves are in the new species light green with pale whitish median and lateral nerves, which in *G. parviflora* are dark green with reddish-brown nervature. Another characteristic is the absence of pilosity in its vegetative parts, a feature extremely unusual in this genus. Whether the very young shoots are pilose or not cannot be definitely settled from the available material. The species is moreover characterized by unusually small monocarps—probably the smallest of all in this genus.

MONIMIACEAE

Siparuna emarginata Cowan, sp. nov.

Arbor monoecia 20 m alta, ramulis novellis dense stellato-lepidotis. Petiolus 2-2.5 cm longus, crassus, planus supra, stellato-lepidotus; laminae 10.5-14 cm latae, 22-33 cm longae, obovatae, ad apicem rotundae et emarginatae, margine integro, ad basim longe attenuatae, coriaceae, costa parce stellato-lepidota, aliter parcissime stellato-lepidotae, venis 14-15-jugatis, salientibus, costa saliens. Inflorescentiae axillares, cymosae, ca. 12 cm longae, cum floribus stellato-lepidotae; flores feminei ad terminum ramulorum praecipuorum, ovoidei, 6 mm longi, 5 mm lati, tepalis obsoletis, pedicello 2-4.5 mm longo; flores masculi clavati, ca. 6 mm longi, staminibus duobus, subsessilibus, deltoideis, tepalis obsoletis. Fructus immaturus globosus, stellato-lepidotus.

TYPE: tree 20 m tall. Leaves dark green and glossy above, paler below. Fruit green. Primary forest on Fritz Akerman Ore Body, Serra do Navio, ca. 225 m alt., Terr. do Amapá, Brazil, November 5, 1954, *Bassett Maguire & R. S. Cowan 38116* (NY).

The relationship of this species is clearly with *S. pachyantha* A. C. Smith, a species of the Upper Amazon Basin. In the discussion published with his original description, Smith notes that while his species keys out near *S. sarmentosa* and relatives in Perkins' monograph (Pflanzenreich IV. 101. 1901) it actually is not closely related to either *S. sarmentosa* or any of the related species. He was unable to relate his species to any other because of its long attenuate leaves and the fact that the male flowers have only two stamens and lack tepals. *S. emarginata* has just these characters, but it differs by its larger, more diffuse inflorescences, and more strongly obovate and emarginate leaves which have fewer pairs of principal vein branches. The shape of the leaf apices provides the basis for the name of the new species.

CONNARACEAE

Connarus fasciculatus (DC.) Planch.

Tufted tree 3 m tall. Fruits cauliflorous, green. Sap red. Occasional in forest on ferro-bauxite, rim of Plateau A near junction of Line A and Expedition Line,

550 m alt., Nassau Mountains, Suriname, January 3, 1955, *Cowan & Lindeman 39086*. Tree 4 m tall, flowers cream-white. Forest on laterite-ferrite, on Line A, Plateau A, Nassau Mountains, 525 m alt., Suriname, February 28, 1955, *Maguire 40709*. Slender unbranched tree 5 m tall, 2-4 cm diam., inflorescence cauliflorous, mature fruit red-orange. Occasional in high mixed forest on bauxo-ferrite, Line A on Plateau B, 150 m. west of Line 25, Nassau Mountains, 480 m alt., Suriname, March 8, 1955, *Maguire 40781*. Tree in forest on Plateau C, Nassau Mountains, Suriname, March 10, 1955, *Maguire 40784*.

This is an especially interesting set of collections, for it is the first material of this species to be collected since the type collection; they are also the first records of the species outside French Guiana. The type collection was in fruiting condition only and the Paris sheet, which I have studied, did not have vegetative parts. The scant material and the inadequate description seem to make a complete re-description of the species necessary.

Tree 3-5 m tall, unbranched, trunk 2-4 cm in diameter, glabrous but in younger parts lenticellate. Leaves glabrous, 47-92 cm long, the terete petioles 7.5-15.5 cm long, rachis 29-61 cm long, terete; leaflets 10-12-jugate, opposite, subopposite, or subalternate, the petiolules 3-6 mm long, the blades 5-17.5 cm long, 2-4.5 cm wide, lanceolate to oblong-elliptic; base inequilateral, the upper side obtuse, the lower acute; apex caudate-acuminate. Venation plane and prominulous above, conspicuous and salient beneath, about 7 pairs of primary veins. Inflorescences borne on the trunk below the leaves in fascicles of racemes 2-4 cm long, the axes, pedicels, bracts, and bracteoles brown-stellate-pubescent, the bracts and bracteoles minute. Pedicels jointed apically, about 1 mm long. Calyx 5-lobed, united about two-thirds of its length, about 4 mm long, stellate-pubescent outside, glabrous within. Petals five, narrowly elliptic, 5 mm long, 1.5 mm wide, punctate, glabrous. Stamens about 3 mm long, glabrous; pistil densely stellate-pubescent, the stigma capitate. Fruit obovate, apiculate, sparingly pubescent, 18-24 mm long, 9-12 mm wide, finely venulose. Seed black with a white aril, about 15 mm long.

There is only one other known species with which this one appears to be related: *C. klugii* of Peru is similar but certainly distinct.

EUPHORBIACEAE

Pausandra macrostachya Ducke.

Infrequent tree 3 m tall in forest of medium height, flowers white; growing on lateritic soil in vicinity of Camp, Montagne de Kaw, 275 m alt., French Guiana, December 11, 1954, *Cowan 38730*. This determination is based upon the description of Ducke's species which was collected on the Tapajoz River of the State of Para, Brazil; it is the first report of its presence in French Guiana. According to Ducke, it is related to *P. megalophylla* Muell.-Arg., a species with smaller leaf-glands and much shorter inflorescences.

OCHNACEAE

Ouratea sagotii (v. Tiegh.) Cowan, comb. nov.

Hostmannia sagotii v. Tiegh. Ann. Sci. Nat. Bot. VIII, 16: 414. 1902.

Tree 5 m tall. Petals yellow, stamens golden. Occasional in forest of medium height on laterite, vicinity of Camp, Montagne de Kaw, 220-250 m alt., French Guiana, December 12, 1954, *Cowan 38739*. Tree 2 m tall. Flowers golden-yellow. Frequent in forest on bauxite, Montagne de Kaw, 250-270 m alt., French Guiana, December 14, 1954, *Cowan 38822*.

In our herbarium three other collections have been identified as this species: *Froes 1724* and *1736* from the State of Maranhão, Brazil, and *Hitchcock 17657* from the Yarikita River in British Guiana. The collections cited above are the first reported from French Guiana since Sagot's collection and certainly the best flowering material yet available. I have not seen the type but I have seen a photo (US) of another Sagot collection (772?) which is apparently the same species. Also sheets of a collection from the Maroni River in French Guiana by Melinon have been available for study (NY, US). With the evidence available, I have concluded that the combination *O. sagotii* is the correct binomial for this species and it appears that such a combination has not been previously made.

QUIINACEAE

Quiina congesta Cowan, sp. nov.

Arbor 8 m altus, 5 cm diametro, ramulis novellis brunneo-strigulosis, glabrescentibus, internodiis compressis. Stipulae deciduae, subulatae, 4 mm longae, brunneo-strigulosae. Folia opposita, in sicco viridia infra, supra subplumbea; petiolus 9-12 mm longus, minute puberulus; lamina 13-28 cm longa, 4-9 cm lata, elliptica, ad basim decurrens, ad apicem acuminata, ad marginem undulata, tenuicoriacea, supra glabris puberulis costis exceptis, infra sparsissime puberulis; costa venisque infra et supra salientibus, venis 19-27-jugatis. Inflorescentiae axillares, congestae, fasciculatae, 1-1.5 cm longae, axe minute puberulo, 7-10 mm longo. Flores masculini solum visi, pedicellis 2.5-3 mm longis, glabris; 5 sepala ca. 1 mm longa, oblongo-ovalia, ciliolata, petalis glabris, 5, ca. 1.5 mm longis, ovalis, concavis. Stamina ca. 25, filamenta 0.6 mm longa, glabra, antheris ovalis.

TYPE: small tree 5 cm diam., 8 m high, flowers yellow-brown. Infrequent in *Euterpe-Symphonia-Myrtaceae* Swamp overlying bauxite, Line 25, north of Expedition Line, Plateau B, Nassau Mountains, ca. 525 m alt., Suriname, March 3, 1955, *Bassett Maguire 40739* (NY).

It has been my good fortune to be able to consult Dr. J. Murca Pires (who has in manuscript a revisionary study of this genus) on the relations of this new species. He has been most helpful and I wish to acknowledge my gratitude to him.

Dr. Pires points out that the nearest relative of *Q. congesta* (the specific epithet alludes to the unusually contracted inflorescences) is unquestionably *Q. obovata* Tul. However, the new species is readily separable on its differently-shaped leaves which are entire (not denticulate), its shorter stipules and pedicels, and by its five-parted rather than four-parted flowers.

GUTTIFERAE⁵

Clusia platystigma Eyma, Meded. Bot. Mus. & Herb. Rijks. Univ. Utrecht 4: 18. 1932.

Epiphyte; old leaves and fruit from the ground, "Cebola brava," lower montane slopes Serra do Navio, Terr. do Amapá, Brazil, November 8, 1954, *Cowan 38147*. Under montane mixed forest on Serra do Navio, large *Clusia* fruits were picked up which had fallen from above to the ground. At the same place, fallen leaves were also picked up which were assumed to be from the same epiphyte that could be seen high in the forest top. Both leaves and fruit are compatible with specimens and description of *Clusia platystigma* Eyma. This species has been recorded only from Suriname. It is reasonable to conclude that the Navio

⁵By Bassett Maguire

material represents a plant or plants of *C. platystigma*, and that it establishes an extension of range from Suriname to Amapá, Brazil.

In our specimens, the leaves are relatively somewhat broader than for Suriname plants, and petioles are a bit shorter. Fruits of the Navio specimens dehisce by 10–22 segments, thus indicating as many carpels and stigmas. The fruit of *C. platystigma* was described as being 12–13-locular and having 12–13 stigmas.

***Chrysochlamys weberbaueri* Engl.**

Tree 3–5 m tall; fruit whitish-green, pendent, locally occasional, tributary of Igarape do Casino, at junction of trails to Rio Araguary and Serra do Viado, Amapá, Brazil, November 17, 1954, *Cowan 38373*.

In 1935 Sandwith (*Kew Bull.* 1935: 118) reported the occurrence of the Amazon-Peruvian *Chrysochlamys weberbaueri* in the Rupununi River basin of British Guiana. A. C. Smith in 1938 collected specimens (No. 2840) which were identified with the above species. Now Cowan has obtained specimens from Amapá which apparently constitute a third record for the genus in the general Guianan region. The Amapá collection is in young fruit, and is tentatively assigned to *C. weberbaueri*.

TURNERACEAE

***Turnera amapaensis* Cowan, sp. nov.**

Arbuscula 1–1.5 m alta, ramulis fulvo-velutinis. Stipulae persistentes, 1–1.5 mm longae, 0.3 mm latae, subulatae, strigulosae; folia oblanceolata, chartacea ad rigiduloso-chartacea, petiolis 8–15 mm longis, strigulosis, 2–3 pares glandularum discoidearum ferentibus, laminis 15–27 cm longis, 3.5–6.5 cm latis, ad basim longo-attenuatis, decurrentibus, ad apicem gradatim longo-acuminatis, ad marginem irregulariter undulatis vel sinuato-dentatis, supra pilosulis ad costam, infra fulvo-velutinis, costa venisque supra planis, infra plus minusve salientibus, venis 6–9 jugatis. Flores in axillis ephyllorum solitarii et ad apicem ramulorum in capitulum bracteosum collecti, bracteis oblanceolatis, strigulosis, acuminatis, 4–6 cm longis, 0.5–1 cm latis; pedicelli 2–3 mm longi, strigulosi, bracteolis 8–10 mm longis, 1–1.5 mm latis, anguste ellipticis, acutis, strigulosis; calyx et corolla in speciminibus deficientes; antherae anguste oblongae, 4 mm longae, 0.7 mm latae, glabrae; styli 3, sericei, ca. 6 mm longi, ovario verruculoso, oblongo-ovato, glabro. Fructus maturus albus, 15 mm longus, 10 mm latus, tuberculatus, oblongo-ovoideus; semina oblanceoloidea, valde curvata contortaque, ca. 5 mm longa, 2 mm lata, villosula, minute reticulata, arillo ca. 3.5 mm longo et lato.

TYPE: shrub 1 m tall. Fruit white. Infrequent in lowland forest along trail to Serra do Viado, near Serra do Navio, Rio Amapari, Terr. do Amapá, Brazil, November 17, 1954, *R. S. Cowan 38392* (NY). Paratypes: shrub 1 m tall, fruit greenish-white. Occasional in forest on Gurita Ore Body, Serra do Navio, Terr. do Amapá, Brazil, November 4, 1954, *Maguire & Cowan 38130* (NY). Shrub 1.5 m tall, fruit white. Frequent in forest on Glycon Ore Body, Serra do Navio, Terr. do Amapá, Brazil, November 3, 1954, *Maguire & Cowan 38140* (NY).

In Urban's monograph of the Turneraceae, the species keys out readily to "Series 1-Salicifoliae" and of the species that he recognized, the nearest is *Turnera glaziovii* Urb. Since the publication of his study, several other species have been described but the only one of any concern to us here is *T. grandifolia* Bremekamp from southeastern Surinam. Two recent collections (*Cowan & Lindeman 39091, 39140*) from the Nassau Mountains of eastern-central Surinam have been referred to this species.

There is no doubt of the close relationship between these two species, but there appear to be ample morphologic and geographic differences to justify their separation. The most obvious difference is the velvety under surfaces of the leaves of *T. amapaensis*. In addition, its broader leaves, in proportion to their length, shorter petioles, and undulate to sinuate-dentate leaf margins also distinguish it from *T. grandifolia*.

RUBIACEAE⁶

Faramea polytriadophora Brem., sp. nov.

Inflorescentia sessili e triadibus pluribus composita a congeneribus omnibus distincta.

Arbor ca. 10 m alta, trunco 10 cm diam. Rami novelli 3 mm diam., complanati, lateribus angustioribus sulcatis, internodiis 7-10 cm longis. Folia petiolo profunde canaliculato 2-3 cm longo instructa; lamina anguste oblonga, 19-24 cm longa et 5-6.5 cm lata, apice in caudam obtusam contracta, basi acuta, coriacea, sicc. haud conspicue discolorata, costa utrimque prominente, nervis utroque latere costae plerumque 13 utrimque prominulis, reticulatione satis densa utrimque conspicua. Stipulae in specimine examinato ad basin inflorescentiae solum remanentes, ibi ovata-deltaeidae, in aristam brevem exeuntes, parte superiore decidua. Inflorescentia sessilis, e triadibus 15-20 umbellatim dispositis composita; triades stipite 1.3-2.0 cm longo instructae; pedicelli 7-10 mm longi. Bractee minimae et filiformes, mox deciduae. Calyx truncatus vix 1 mm altus, intus eglandulosus. Corolla tubo roseo-lavendulo 15 mm longo et 5 mm diam., lobis albis 8 mm longis et 4 mm latis. Antherae 5 mm longae, apice apiculato orem tubi attingentes, basi breviter bilobatae. Granula pollinis 25 μ diam. Discus obtuse conicus 1.5 mm altus. Stylus 4 mm longus; stigmata 1.2 mm longa. Drupa nondum visa.

TYPE: tree 35 ft tall, 4 in diameter. Inflorescence, calyx and corolla tube pink-lavender, corolla limb white. Infrequent in clearing for new camp site, top of Mathews' Ridge, ca. 300 ft alt., Barima River, Northwest Territory, British Guiana, February 4, 1955, *Richard S. Cowan 39378* (NY).

This species might perhaps be included in *Eu-faramea* Muell.-Arg., where the flowers are arranged in a fan-shaped cyme at the top of a flattened peduncle; in *Faramea polytriadophora*, however, the flattened upper internode bears a sessile inflorescence, and the latter, although fan-shaped, is not composed of single flowers but of triads.

Schumann's supposition (E. & P. Nat. Pfl. 4^o: 145. 1891) that the lateral flowers of the rhipidium of *Eu-faramea* would develop from serial buds, does not look convincing. In the other *Faramea* species the inflorescence is a panicle composed of cymes, and it seems more plausible to derive the rhipidium of *Eu-faramea* from such a panicle than to claim a structure for it that occurs nowhere else in this genus. The flattened umbel of *F. polytriadophora* might be regarded as intermediary between the panicle of the other groups and the rhipidium of *Eu-faramea*.

Faramea sessiliflora Aubl. var. *pedunculata* Brem. var. nov.

Foliis petiolo circ. 8 mm longo instructis; cymis stipite 1-2 cm longo elatis a typo recedens.

TYPE: tree 7 m tall. Flowers white. Infrequent in forest on laterite. Mon-

⁶By C. E. B. Bremekamp.

tagne de Kaw, 250-270 m alt., French Guiana, December 14, 1954, *Richard S. Cowan 38808* (NY).

The type of *Faramea sessiliflora* Aubl. was collected in the same locality. Although the plant described above differs at first sight rather conspicuously from the type, the differences appear to be restricted to those mentioned in the description, and there is therefore no reason to regard it as specifically distinct.

***Guettarda macrantha* Benth.**

Tree 5 m tall. Flowers white, sweet-scented. Locally occasional in roadside forest over bauxite, Adjoema Kondre, Hill No. 1, Moengo, Suriname, December 27, 1954, *Cowan 38998*. While this species is not uncommon in British Guiana, this is the first time that it has been collected in Suriname.

***Isertia pterantha* Brem., sp. nov.**

Inter congeneras ovario 6-loculari et stigmatibus 6 instructas foliis subglabris et corolla circ. 5 cm longa, ante anthesin ad basin loborum alata noscenda.

Arbor ca. 5 m alta. Rami novelli vix notabile papilloso, circ. 4.5 mm diam. Folia opposita petiolo glabro 1.5-4 cm longo instructa; lamina oblongo-obovata, 13-24 cm longa et 5-10 cm lata, caudato-acuminata, basi acuta vel subobtusata, sicc. supra brunnea et subtus viridi-brunnea, supra glabra, subtus costa nervisque vix notabile puberula, inter nervos glabra, costa supra colore coccineo conspicua, subtus prominente, nervis utroque latere costae 15-17 supra immersis, subtus prominulis, venulis transversis supra immersis, subtus colore saturatiore distinguendis. Stipulae lobis lateralibus orbicularibus circ. 5 mm longis instructae et inter lobos laterales cicatricem lobi centralis mox decidui exhibentes. Inflorescentia paniculiformis pedunculo ca. 5 cm longo, vix notabile puberulo elata, e rachide pedunculo subaequilonga et ramulis lateralibus in cymas plerumque 3-floras exeuntibus composita. Bracteae infimae subulatae, superiores deltoideae, longitudine sensim usque ad 1.5 mm decrecentes. Cymae flos centralis sessilis, flores laterales stipite 4-7 mm longo, apice bracteolis ovato-orbicularibus instructo elati. Ovarium 6-loculare. Calyx 4-merus glaber. Corolla 6-mera tubo rubro-lutea, limbo lutea, extus vix notabile papillosa, ca. 5 cm longa, ante anthesin ad basin loborum conspicue alata, tubo 4 cm longo, fauce barbato, lobis 10 mm longis, intus fere totis barbatis. Antherae 6.5 mm longae. Stigmata 6, 4.5 mm longa. Drupa nondum visa.

TYPE: tree 5 m tall. Corolla tube orange, limb yellow. Occasional in forest of medium height on laterite, vicinity of Camp, 275 m alt., Montagne de Kaw, French Guiana, December 11, 1954, *Richard S. Cowan 38703* (NY).

The plants from French Guiana that have been identified as *Isertia rosea* Spruce ex K. Sch. deserve to be reexamined, for they might prove to belong to the species described above. *I. rosea* has smaller flowers and a 4-locular ovary.

***Ixora cowani* Brem., sp. nov.**

Inter congeneras americanas foliis ternatis et angustissimis conspicua, ab *I. acuminatissima* Muell.-Arg. cui foliis angustissimis similior non solum foliis ternatis sed etiam inflorescentia ampliore et calyce quadrilobato facilliter distinguenda.

Arbor parva, 2.5-4 m alta. Rami triangulares, novelli 1.5-2.0 mm diam., papilloso, internodiis 4-10 cm longis. Folia ternata, sessilia, linearia, 18-33 cm longa et 2.1-3.3 cm lata, apicem versus sensim contracta, basi cuneata, subcoriacea, sicc. grisea, utrimque glabra, costa supra canaliculata et subtus prominente, nervis patentibus utroque latere costae 18-24 subtus prominulis, reticula-

tionem laxam utrimque distinguenda. Stipulae deltoideae, apice in aristam vix 1 mm longam exeuntes, ca. 5.5 mm longae, dorso carinatae, intus albo-sericeae. Inflorescentia ramum ordinarium terminans, laxa paniculiformis, pedunculo papilloso 3.5-5 cm longo elata; rachis 3.5-7.0 cm longa, papillosa; ramuli ternati, infimi rachide fere dimidio breviores, trichotomi, alii plerumque semel vel bis dichasiales. Bracteae deltoideae, ramulorum infimorum ca. 3 mm longae, aliae gradatim minores. Flores centrales dichasiorum sessiles, laterales pedicellis apice bracteolatis 1.5-2.0 mm longis elati. Bracteolae ovatae ca. 0.7 mm longae. Ovarium glabrum. Calyx urceolaris, margine in lobos late deltoideos tubo paulo breviores productus, glaber. Corolla extus papillosa, tubo coccineo 15 mm longo et 0.6 mm diam.; intus glabro, lobis extus viridibus, intus luteis 6 mm longis, acutis. Stamina antheris apiculatis 2.5 mm longis. Stylus glaber 3.5 mm exsertus, stigmata filiformia 1.5 mm longa. Fructus nondum notus.

TYPE: tree 4 m tall. Corolla with reddish tube and yellow limb. In forest near beginning of trail to Serra do Viado, ca. 90 m. alt., Rio Amapari, Serra do Navio, Terr. do Amapá, Brazil, November 16, 1954, *Richard S. Cowan 38344* (NY). Paratype: same data, *Cowan 38405*.

Ixora cowani resembles *I. acuminatissima* Muell.-Arg. in the shape of its leaves, but it differs conspicuously from that species in the shape of the calyx, which is less deeply incised. *I. intensa* Krause, Notizbl. Bot. Gart. Berlin 6: 205 (1914) comes nearer to *I. acuminatissima*, which it resembles in the 4-partite calyx, than to *I. cowani*. *I. schomburgkiana* Benth. (*I. orinocensis* Benth. ined.) agrees with *I. cowani* in the 4-lobate calyx, but its inflorescence is more contracted, and its leaves are much wider.

***Mapouria mahuriensis* Brem., sp. nov.**

Inter congeneras stipulis obtusis parvis, margine eciliatis instructas foliis obovatis vel oblanceolatis, apice abrupte acuminatis noscenda.

Frutex glaber, 1.75 m altus. Rami novelli 2.5 mm diam., mox cortice primum brunneo, lenticellis conspicue albo-punctato, deinde griseo vestiti, internodiis 1.5-7 cm longis. Folia sensim in petiolum 1-2 cm longum contracta; lamina obovata vel oblanceolata, 6.5-16 cm longa et 3-7 cm lata, apice abrupte acuminata, basi sensim contracta, utrimque opaca, sicc. grisea, costa nervisque supra prominulis, subtus prominentibus, venulis paucis et vix conspicuis, acarodotiis nullis, nervis utroque latere costae 6 vel 7. Stipulae ovato-orbiculares, obtusae, margine eciliatae, 3 mm longae. Inflorescentia pedunculo 2-4.5 cm longo elata, corymbiformis, 4-7.5 cm diam. et 2-3.5 cm alta; ramuli infimi quaterni. Bracteae minutae et mox deciduae. Flores centrales dichasiorum sessiles, laterales pedicellis usque ad 2 mm longis elati. Calyx cupularis 1.2 mm altus, margine truncatus vel vix notabile 5-denticulatus. Corolla alba, tubo 4 mm alto, intus glabro, lobis 3 mm longis. Filamenta floris brachystyli 2.5 mm longa; antherae 1.5 mm longae, apice basique obtusae. Granula pollinis 3-porata 50 μ diam. (aliquae 4-porata). Stylus floris brachystyli 2 mm longus; stigmata 1.5 mm longa. Drupa nondum visa.

TYPE: shrub 1.75 m tall. Flowers white, axes of inflorescences also white. Occasional in primary forest on Montagne de Mahury, near Cayenne, 130-170 m alt., French Guiana, December 17, 1954, *Richard S. Cowan 38853* (NY).

The *Mapouria* species are heterostylous; the specimen described above belongs to the brachystylous form.

The *Mapouria* species are difficult to classify. The best characters are probably found in the stipules, but they have one distinct disadvantage, viz. that they are not always distinguishable, because the stipules are shed when the

leaves expand, so that, if the material consists of flowering shoots only, not a single stipule may be available. Some of the shoots of Dr. Cowan's specimen fortunately were sterile, and here the characters of the stipules could be studied. They proved to be rather small, obtuse and eciliate. Among the species provided with stipules of this kind, *Mapouria mahuriensis* is recognizable by the shape of its leaves and by the colour the latter assume in drying.

***Palicourea chrysorrhachis* Brem., sp. nov.**

Inter congeneras bracteis e basi ramulorum usque ad nodum sequentem ascendentibus instructas foliis majoribus distinguenda.

Arbor parva, ca. 2 m alta. Rami novelli complanati, ca. 4.5 mm diam. densius ferrugineo-puberuli, veteriores subteretes; internodia 6.0-9.5 cm longa. Folia opposita, petiolo ferrugineo-tomentello 0.7-1.4 cm longo instructa; lamina elliptica, 18-23 cm longa et 8.5-11.5 cm lata, acuminata, basi acuta, supra nitida, subtus opaca, sicc. supra olivaceo-brunnea, subtus olivacea, supra costa et parte inferiore nervorum densius puberulis exceptis glabra, subtus costa nervis venulisque dense pubescens, inter venulos vix notabile puberula, costa nervisque supra paulum impressis, subtus prominentibus, venulis laxe reticulatis subtus prominulis, nervis utroque latere costae 13 vel 14. Stipulae e vagina circ., 4.5 mm alta utroque latere rami in lobos duos anguste deltoideos ca. 7.5 mm longos productae, extus ferrugineo-tomentellae, intus ad basin glabrae, ad marginem vaginae annulo collectorum subulatorum usque ad 1.5 mm longorum instructae, lobis puberulae. Inflorescentia basi jugo foliorum ca. 5 cm longorum instructa, pedunculo chryseo-tomentello 3 cm longo elata, trichotome corymbosa, ca. 8 cm diam. et 5 cm alta; rachis ramulique etiam chryseo-tomentelli; bractee ramulorum usque ad ramificationem proximam ascendentes, deltoideae, puberulae, sicc. brunneae, infimae ca. 7 mm longae, superiores gradatim breviores, supremae ovato-lanceolatae circ. 2.5 mm longae; flores ad apicem ramulorum congesti, sessiles; bracteolae florum lateralium subulatae, 1.5-2.5 mm longae. Flores 5-meri, probabiliter homostyli. Ovarium chryseo-tomentellum 2-loculare. Calyx cupularis, ovario paulo brevior, puberulus, margine in dentes 5 tubo dimidio breviores productus, intus glaber et glandulis 5 cum segmentis alternatibus instructus. Corolla coccinea, extus hirtello-tomentosa et apicem versus verruculosa, tubo 12 mm longo et 4 mm diam., intus annulo pilorum basali excepto glabro, lobis 4 mm longis intus glabris. Stamina filamentis glabris instructa; antherae dorsifixae filamentis bis longiores 3.5 mm longae, apice mucronato incisuras corollae fere attingentes, thecis basi acutis. Granula pollinis globosa 115 μ diam. Discus annularis glaber, bipartitus. Stylus glaber 8 mm. longus, stigmata filiformia 3 mm longa. Drupa nondum visa.

TYPE: tree 2 m tall. Inflorescence axes bright-yellow, flowers bright-red. Occasional in forest on laterite, Montagne de Kaw, 250-270 m alt., French Guiana, December 14, 1954, *Richard S. Cowan 38806* (NY).

Palicourea chrysorrhachis belongs to a group of which *P. marcgravii* St.-Hil. is perhaps the best-known representative. They possess a corymbose inflorescence provided with bracts that have shifted from their position at the base of the branchlets to the next ramification. It differs from the other members of this group by the large size of its leaves.

***Rudgea dasyantha* Brem., sp. nov.**

Inter congeneras stipulis pectinatis instructas maxime ut *R. fissistipula* Muell.-Arg. sed foliis subtus costa nervisque densius et inter nervos sparse pubescentibus, calyce extus glabro, corolla paulo brevior ab ea recedens.

Arbor 3 m alta. Rami novelli 3.5-5.0 mm diam., puberuli, internodiis 3.0-4.5 cm longis, subcomplanatis; rami veteriores cortice griseo opaco vestiti. Folia petiolo puberulo-pubescente 1.0-1.5 cm longo instructa; lamina oblongo-elliptica, 16.5-19.0 cm longa et 6.7-8.4 cm lata, apice acuminata, basi paulum contracta, supra glabra et nitidula, sicc. olivacea, subtus costa nervisque densius, inter nervos sparse puberulo-pubescentis, sicc. luteo-viridis, costa nervisque supra impressis, subtus prominentibus, venulis supra ubi e nervis oriuntur sicc. noduliforme prominulis, nervis utroque latere costae 8-10, reticulatione, laxa subtus prominula. Stipulae ovatae, margine pectinatae, ca. 13 mm longae, extus puberulae. Inflorescentia pedunculo 3.0-4.5 cm longo, dense puberulo-pubescente elata, e capitulis 3-5 composita; capitula lateralia ramulis 1-5 mm longis, capitulum terminale stipite usque ad 12 mm longo elatum; capitula e floribus 15-30 composita. Flores 5-meri, homostyli. Ovarium dense ferrugineo-pubescentis. Calyx fere usque ad basim partitus, lobis anguste deltoideis, paulum inaequalibus, 3-4 mm longis, margine praesertim apicem versus ciliatis, ceterum glabris, sicc. nigrescentibus. Corolla alba, sicc. nigrescens, extus apicibus loborum sparse, ceterum densius puberulo-pubescentis, tubo 4-5 cm longo et 1.8 mm diam., intus dimidio inferiore glabro, dimidio superiore piloso et ad orem subbarbato, lobis 7-9 mm longis et 1.5 mm latis, intus glabris, ad basim tamen barbatis, apicibus iam ante anthesim liberis. Stamina filamentis glabris ad incisuras corollae inserta; filamenta antheris dimidio breviora; antherae dorsifixae 2 mm longae, apice obtusae, thecis basi obtusis. Granula pollinis globosa, 48-50 μ diam. Stylus glaber; stigmata 2 filiformia 1-2 mm longa, breviter exserta. Drupa nondum visa.

TYPE: tree 3 m tall. Flowers white, sweet-scented. Occasional in high forest, 225-270 m alt., Montagne de Kaw, French Guiana, December 13, 1954, *Richard S. Cowan 38793* (NY).

Rudgea dasyantha comes very near to *R. fissistipula* Muell. Arg., but is easily distinguishable from the latter by the pubescent underside of the leaf, the glabrous calyx and the slightly shorter corolla. The group to which these species belong is well characterized by the pectinate stipules.

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