Excerpt from:

H. H. Rusby. 1927.

Descriptions of new genera and species of plants collected on the Mulford Biological Exploration of the Amazon Valley, 1921–1922. Memoirs of the New York Botanical Garden 7: 205–387. [Malpighiaceae on pages 271–277]

#### Malpighiaceae

## Mascagnia ixiamensis

(Specimens with young and mature fruit.) Young portions and inflorescence gray-puberulent. Leaves (only the upper seen) opposite, glandless, the stipules not apparent. Petioles 1 to 2 cm. long, slender, channeled above, mostly twisted, the blades 3 to 4 cm. long, 3 to 5 cm. wide, ovate, with somewhat rounded base and short-acuminate and acute summit, entire, thin, very shortpuberulent beneath, obscurely and sparsely so above, the venation lightly conspicuous beneath, the secondaries about 5 on each side, strongly ascending. Panicle terminal, lax, stoutly peduncled, 2.5 dm. long, 4 dm. broad, the branches opposite, divergent with very small ovate, concave bracts with contracted base. Calyx 8-glandular, densely gray-tomentose like the young wings, the sepals broadly triangular-ovate, mostly obtuse, little, if any, exceeding the oblong glands. Mature fruit subrotund, nearly 2 cm. broad, the wing very thin. Mature wings sparsely pilose, the dorsal only half the width of the lateral, or less, the truncate base, which does not extend below the base of the nutlet, broader than the summit.

Ixiamas, 800 feet, M. Cardenas, December 19, 1921 (no. 1999).

# Mascagnia pachyptera

(Fruiting specimen.) Glabrous, except for the lightly pubescent inflorescence. Stems terete, slender, the leaves opposite, mostly glandless, occasionally one or two obscure glands in the edge of the blade near the base, the stipules not apparent. Petioles 1 to 2 cm. long, slender, narrowly grooved above, the blades 6 to 12 cm. long, 3 to 6 cm. broad, oval or slightly obovate, with obtuse or acute base and abruptly short-pointed and acute sum-

mit, entire, thin, the venation very slender, scarcely prominent, the principal secondaries about 5 on each side. Small racemes terminating short branchlets or subaxillary, the rachis nodose, the branches minutely bracted. Calyx 8-glandular, subcoriaceous. Fruit sparsely pilose, the carpels three. Wings coriaceous, the dorsal 1.5 to 2 cm. long, 4 mm. wide, extending equally below and above the nutlet, both ends rounded, the lateral 1.5 cm. long, 1 cm. wide, the base broadly rounded, extending somewhat below the nutlet, the margin sinuate, the summit projected above the nutlet and somewhat outward, the venation not prominent. Nutlet large and thick.

Rurrenabaque, 1,000 feet, *M. Cardenas*, November 24, 1921 (no. 1163).

# Mascagnia macrophylla

Glabrous, except the minute puberulence of the inflorescence, the stems stout, terete, hollow. Stipules not apparent. Petioles 2.5 cm. to 4 cm. long, very stout, twisted, blackish-brown, narrowly grooved above, bearing a pair of oblong glands near the summit. Blades 2 to 3 dm. long, 1.5 dm. wide, ovate or oval, with rounded base and abruptly short-acuminate and acute summit, entire, thin, bright-green, somewhat shining above, the venation slender, lightly prominent on both sides, the secondaries about 10 on each side, strongly falcate toward the margin, connected by a loose reticulum. Panicles axillary, shorter than the leaves, shortly and stoutly peduncled, their branches opposite, bracteate, mostly subtended by small glands. Pedicels short and stout, 2-bracteolate near the summit, the bractlets gland-like. Calyx 10glandular, the glands small, basal, subglobular, the sepals fleshy, erect, 2.5 mm. long and broad, with rounded summit. Petals yellow, 5 mm. long and broader, very shortly unguiculate, entire. Stamens 10, monadelphous at the base, erect, short, fleshy, all with anthers, the anthers short and very broad, the connective short, thickened, verrucose. Carpels nearly distinct, pubescent, the styles exceeding the stamens, stout, crooked, the stigma flattened, broad, spreading. Fruit 7 cm. broad, 5 cm. long, very thin, lustrous, pale-green, the wings irregularly and shallowly crenate, the principal nerves about 30 to 35, mostly forking at about two thirds of the way to the margin. Dorsal wing about 5 mm. broad, subsemicircular, extending equally above and below the nutlet.

Flowering specimen: Ixiamas, 800 feet, M. Cardenas, December 18, 1921 (no. 1943). Fruiting specimen: Rurrenabaque, 1,000 feet, M. Cardenas, January 26, 1922 (no. 2044).

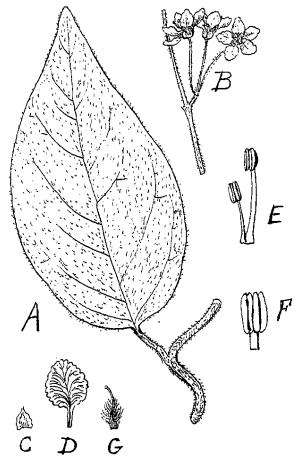


FIGURE 4. Jubistylis mollis Rusby. A, leaf, natural size; B, umbel, natural size; C, upper part of sepal,  $\times$  2; D, petal,  $\times$  2; E, two stamens,  $\times$  5; F, anther,  $\times$  10; G, pistil,  $\times$  2.

# JUBISTYLIS gen. nov.

Calyx 5-parted, glandless. Petals unguiculate, glabrous, crenate, the base of the unguis slightly dilated. Stamens 10, all perfect, unequal, the filaments dilated at the base and slightly connate, the anthers ovate, versatile, not appendaged (?), but having a narrow translucent margin. Pistils 3, distinct, pubescent, the lower portion of the style densely long-pilose and ferruginous, the summit recurved, the stigma truncate, small, the ovary apparently without crest or appendages. Fruit not seen.

A climbing plant, with opposite, petioled, mollous foliage, a pair of glands at the summit of the petioles, on the upper side. Flowers yellow, slenderly pedicelled, in lateral, short-peduncled umbels.

Apparently related to *Hiraea*, but differing in its glandular petioles, its distinct pistils, without crests, and its peculiar anthers, which approach *Pterandra* by their thin margin, though scarcely to be called winged.

## Jubistylis mollis

Softly, though not very densely pilose, with white hairs. Stems twining, brown, terete or irregularly angled. Branchlets short, slender, leafy, the younger portions pilose with coarse white divaricate or often reflexed hairs. Petioles of the larger leaves 2 cm. long, slender, densely pilose, bearing a pair of blackish glands at the summit, on the upper side. Blades to 1 dm. long and half as wide, ovate with rounded base and shortly acuminate and acutish summit, entire, thin, the upper surface dark-green with a slight gray appearance from a sparse covering of gray hairs, the lower surface densely pilose and gray, the venation slightly prominent beneath, the secondaries about 8 on each side, strongly ascending. Umbels loosely few-flowered, short-peduncled, the pedicels filiform but rigid, about 1.5 cm. long. Sepals 3 mm. long and broad, ovate, obtuse, thin, pilose, glandless. Unguis of petals longer than the sepals, stout, the lamina abrupt, 5 mm. broad and not quite so long, yellow, the margin crenate. Stamens unequal, the longest nearly twice the length of the sepals, the anthers short, ovate, obtuse. Pistils 3, densely and coarsely long-pilose, the styles about as long as the stamens.

Collected along the cataracts of the Bopi River, 3,000 feet, H. H. Rusby, September 6, 1921 (no. 732). "A large vine in the edge of the forest."

## Banisteriopsis Whitei

Grayish-pubescent throughout, the bright-green upper leafsurfaces sparsely so. Branchlets elongate, slender, terete, sparsely leafy, the leaves opposite, glandular, the stipules not apparent. Petioles 4 to 8 mm. long, very slender, the blades 2 to 4 cm. long and 1 to 2 cm. wide, ovate, with blunt or rounded base and obtuse or acutish summit, entire, thin, softly pubescent beneath and less so above, the venation inconspicuous. Flowers umbellate, or occasionally subracemose, the umbels short-peduncled, mostly 8-flowered, the pedicels filiform, about 1 cm. long, bracted at the base and 2-bracteolate at about the middle, the bractlets very small, herbaceous. Calyx 3 mm. broad, 8-glandular. Petals yellow, 5 mm. long, obovate-spatulate, concave, entire. Stamens much shorter than the petals, unequal, the filaments subulate, connate at the base, the anthers small, whitish or pale, the connective much thickened. Styles slightly exceeding the stamens, the summits flattened, the stigmas cristate. Ovary pilose.

Espia, 3,500 feet, O. E. White, July 27, 1921 (no. 429).

#### Banisteria canaminensis

(HETEROPTERYS H. B. K.) Tomentellate throughout, the stems somewhat scabrous, reddish, lightly sulcate. Leaves opposite, only the upper seen, the petioles 5 mm. long, stout, bearing 2 small black glands at the summit, the blades 5 cm. long and half as wide, oval with blunt or rounded base and lightly mucronate summit, entire, thick, subglabrous above, softly tomentellate beneath, where the venation is strongly prominent, the secondaries 4 on each side, strongly falcately ascending, connected by a loose and prominent reticulation. Panicles terminal, large, lax, ferruginous, the flowers crowded at the ends of the branchlets, the bracts small, thick, densely ferruginous. Calyx 2 mm. broad, 10-glandular, two of the glands smaller, the sepals thick, erect, equaling the filaments, oval with rounded summit, lightly denticulate. Petals 3 or 4 mm. long, shortly and stoutly unguiculate, yellow, broadly oval, nearly plane, lightly denticulate. Stamens 10, all with anthers, half the length of the petals, subequal, lightly connate at the base, the anthers lightly recurved, the connective black, dorsally thickened, the thecae white. Ovary pilose, the styles about equalling the stamens, very stout, erect, truncate. A single small fruit seen is apparently immature. body is not appendaged, and is pilose, the wing 2 cm. long, 5 mm. broad, lightly ascending, the lower half of the inner margin shallowly excavated.

Canamina, 4,000 feet, O. E. White, July 21, 1921 (no. 259).

## Banisteria Bopiana

(HETEROPTERYS H. B. K.) (Fruiting specimen.) Pedicels etc., appressed-pilose, otherwise glabrous. Branchlets stout, leafy, the leaves opposite, glandless, the stipules not apparent.

Petioles 1 to 1.5 cm. long, very stout, strongly channeled above, the larger blades 2 dm. long, 1 dm. wide, oval and obtuse at both ends, entire, coriaceous, the venation slender, prominent beneath, the secondaries about 8 to 10 on a side, ascending, falcate, connected by a coarse reticulation. Racemes axillary, short-peduncled, few-flowered, the pedicels bracted and 2-bracteolate at the base, the bracts short, ovate, thick and coriaceous. Pedicels 1.5 to 2 cm. long, stout, striate, thickened at the summit. Calvx 8-glandular, the glands concave, the sepals triangular-ovate, thick, blackish, hirsute with brown hairs. Body of fruit 1 cm. long and more than half as broad and thick, elliptical. Dorsal wing nearly horizontal, slightly declined, unequally oblanceolate, about 4.5 cm. long, and more than 1.5 cm. broad, auriculate, the auricle about 1 cm. broad and nearly as long, with rounded end, both coriaceous and finely very many-nerved. Crest of the body double, the inner about twice as wide as the outer. both coriaceous and sinuate, and projecting slightly above the body.

In the Bopi River Valley, 3,000 feet, H. H. Rusby, September 12, 1921 (no. 663).

## Banisteria sphaerandra

(HETEROPTERYS H. B. K.) Lower leaf-surfaces and pedicels minutely sericeous-puberulent. Leaves opposite, glandless, the stipules not seen. Petioles about 7 mm. long, narrowly margined, the margins involute, sulcate beneath, like the lower portion of the midrib. Blades 1 to 1.5 dm. long, 2.5 to 4 cm. broad, regularly acuminate and acute, acutish at the base, entire, thick, lustrous above, pale and slightly sericeous beneath, the slender venation not prominent, the principal secondaries 10 or 12 on each side. Panicle large, lax, the branches opposite from a somewhat turgid node, the branches and branchlets subtended by small reduced leaves, the pedicels subtended by ovate, acuminate and acute, green, thick bracts. Pedicels stoutish, about 3 mm. long, the flowers deep-yellow. Calyx 8-glandular, the sepals nearly 3 mm. long, 2 mm. wide, ovate, blunt, thick, green, erect. Petals 7 mm. long, the claw about a fourth of this length, and nearly equally broad, concave, dentate, the teeth short-fimbriate. Filaments subulate, fleshy, monadelphous at the base, unequal, the longest equaling the styles. Anthers 8, reflexed, the oblong greenish thecae borne on the face of a large, subglobular, black, gland-like connective. Ovary black, deeply 3-lobed, lightly pubescent, the styles stout, spreading, truncate. Fruit not seen.

Dr. Gleason says "Bears a strong general resemblance to B. Mathewsana (A. Juss.), but in that species the calyx appears glandless."

A single specimen, Yrupana, 5,500 feet, G. S. McCarty, August 6, 1921 (no. 126).