#### Passiflora emarginata Humb. & Bonpl. 1813 Subgenus Astrophea Supersection Astrophea Section Astrophea

Distribution: Colombia (1500-2000m).

Small tree 3 to 5 meters high, the cortex rugose, dark gray, the branches erect, terete, the younger subangular, rufo-hirtellous; petioles up to 2 cm. long, rufo-hirtellous; leaves obovate or obovateoblong, 11 to 20 cm. long, 4 to 8 cm. wide, narrowed to a rounded and often emarginate apex, rounded or subcuneate at base, penninerved (midnerve biglandular on under side near base, the glands black, nearly 2 mm. in diameter; lateral nerves 12 to 18 on a side, parallel, straight or slightly arcuate near ends, prominent, darker than the blade), coriaceous or subcoriaceous, dark green and



glabrous above, paler and occasionally glaucous beneath, tomentulous or minutely hirsutulous on the midnerve; the peduncles up to 10 cm. long, 1-2-furcate, main portion subequaling or twice as long as branches, rufo-hirtellous or minutely pilosulous; bracts linear-subulate, about 3 mm. long; calyx tube campanulate, 5 to 7 mm. long, about 6 mm. wide; sepals oblong, 2 to 3 cm. long, about 6 mm. wide, obtuse, white; petals linear-spatulate, 2 cm. long, white; corona filaments laterally compressed, in 3 series, the outermost subdolabriform, 1 to 1.5 cm. long, yellow in the upper half, white in the lower, the filaments of the 2 inner series linear-falcate, dilated, 1.5 to 2 mm. long, white; operculum arising 3 to 4 mm. below the corona, membranous, 1.5 mm. high, erect, erose-lobulate, white; ovary subglobose, densely tomentose; fruit subglobose, 2.5 cm. long, 2 cm. in diameter, ferruginoustomentose, reddish; seeds broadly ovate, 5 to 6 mm. long, 4 to 5 mm. wide, reticulate, shallowly 3-toothed at apex, the axis slightly curved.





#### Passiflora magnoliifolia F. Dietr. 1819

Passiflora arborea Speng. 1826 Passiflora schultzei Harms 1929

### Subgenus Astrophea Supersection Astrophea Section Astrophea

Distribution: Colombia (betwen 1000 et 1700 m). Liana strong. Stem terete, glabrous and green; internodes 3.5–14 cm long. Tendrils cone-shaped, glabrous. Stipules linear, falcate, green yellow-ish to green brown, eglandular to glandular (0–2 glands), glabrous, 5.5–13.2 × 0.4–1 mm (including an arista, 0–1.8 mm long), deciduous. Petiole 1.1–2.9 cm long, green to dark green, slightly caniculate adaxially, glabrous, with two oval ses-sile glands situated at petiole apex. Leaves simple, 7.3–14.2 × 4.4–7.5 cm, glabrous throughout, green to dark green, adaxial surface lustrous, rounded to cordate at base, acute (angle within 45 to 90°) at apex, slightly acuminate and mucronate; leaf margin entire or



glandular (7–25 marginal nectaries). Peduncles 1.5–7.4 cm long, terete, green, glabrous to slightly pubescent, strong (diameter about 1.3-2.4 mm); on both sides, green, concave, 2.8-5.5 cm long, 2.2-4.9 cm wide (same length as flowers), with 4–11 marginal nectariferous sessile glands in distal half. Flowers ax-illary, pendulous, 22–33 mm long (from the nectary chamber to the ovary apex). Hypanthium slightly pubescent, green outside and white inside, 2.59–5.94 mm, with a diameter of 10.35–16.64 mm at the base of sepals. Nectary chamber slightly pubescent, green outside and white inside, 3.1-5.9 mm long, with a diameter of 8.8-17.9 mm. Sepals glabrous, oblate, 2.9-5.1 cm long, 1-1.7 cm wide, adaxial surface white with a sparse to very dense red punctuation, abaxial surface green with red-brown dots, slightly keel-shaped in distal half with a short awn (1-2 mm long). Petals glabrous, oblate, 2.8–4.9 cm long, 0.7–1.2cm wide, white with a sparse to very dense red punctuation. Corona filaments in 5-7 series, banded white and red to dark purple (purple on the distal half and striped with red to purple on their proximal half); two major series, slightly curved, the outer series 12-30 mm long, the second series 24–43 mm long; others series about 1 mm long. Ovary pubescent, yellow to green, 7–11 mm long; styles, whitish with red purple dots, 8-13 mm long, stigmas light yellow to green. Stamens 7-11 mm long. Androgynophore glabrous, white greenish with red dots, 10-16 mm long with an enlarged base about 10 mm wide. Operculum membranaceous, 0.5-1.1 mm long, recurved, shortly fimbriated at margin. Fruit ovoid, pubescent, 4.7-8.4 cm long, 3.8-6.3 cm in diameter, round to triangular transversal section, epicarp about 0.5-0.9 cm thick; immature fruits green with white dots and with six longitudinal ribs (three of them conspicuous); mature fruits yellowish orange with many tiny light orange dots. Pulp transluscent and sweet. Seeds heartshaped, black.





### **Passiflora magnoliifolia** F. Dietr. 1819 Passiflora arborea Speng. 1826

Passiflora arborea Speng. 1826 Passiflora schultzei Harms 1929 Subgenus Astrophea Supersection Astrophea Section Astrophea











#### Passiflora araguensis L. Escobar 1990

#### Subgenus Astrophea Supersection Astrophea Section Astrophea

Distribution: Venezuela 800 m. Lianas with concentric rings of secondary wood and weak tendrils, glabrous except for ovaries. Young stems terete, yellowish brown or greenish brown. Leaf blades elliptic to oblong, 10.7-19.3 cm long, 5.0-8.4 cm wide, acuminate to acute at apex, acute at base, entire at margins, subcoriaceous to coriaceous, drying grayish green or brown, with 9-12 major lateral] veins; foliar nectaries on abaxial surface of midvein ca. 3 mm from base, 2, or these



divided into 4, oval, scarlike, 1.2-2.0 mm long, 0.4-1.1 mm wide; petioles stout, 2.0-3.5 cm long, 1.2-1.3 mm diam.; stipules triangular to ligulate, 2-4 mm long, 0.5-1.0 mm wide at base. Peduncles solitary in leaf axil, 7-10 mm long, 1.0-1.8 mm diam.; bracts dissitate, triangular, 0.7-1.0 mm long, ca. 4 mm wide at base. Flowers campanulate, ca. 3.5 cm long, ca. 3.5 cm diam., white with yellow corona; flower stipe stout, ca. 1 cm long, ca. 1.3 mm diam.; hypanthium campanulate, ca. 5 mm long and wide at base, ca. 8 mm wide at apex; sepals oblong, ca. 2.8 cm long, ca. 6 mm wide; petals subequal to sepals; corona in 5-6 series, the outer dolabriform, ca. 12 mm long, ca. 0.8 mm wide at base, widening to 1.3 mm ca. 4 mm from apex, the second series dolabriform, ca. 3 mm long, ca. 0.2 mm wide at base, to 1 mm wide at apex, the next 2 series linear, 1.5-2.0 mm long, ca. 0.3 mm wide, the innermost series filamentous, reflexed into hypanthium, ca. 1.3 mm long, 0.10-0.15 mm wide; operculum arising ca. 0.8 mm from apex of hypanthium, ca. 3 mm long, dependent then recurved, crenate at margin; ovary spherical, densely pubescent, with whitish lanate trichomes to 0.5 mm long; styles slender, ca. 7 mm long, ca. 0.6 mm diam., pubescent to apex. Fruits spherical or ellipsoid, 3.0-3.5 cm long, 2.4-4.0 cm wide (pressed), with brittle pericarp, greenish; seeds widely obovate, ca. 6.5 mm long, ca. 6









## **Passiflora tica** Gomez-laur. & Gomez 1981 Subgenus Astrophea Supersection Astrophea Section Astrophea

Distribution: from Costa Rica to Colombia (+ 1000). Tree or shrub 3-15 m high, without tendrils; stem terete; stipules 0.15-0.4 cm, soon deciduous: petioles 2.5-4.5 cm long, with 2 sessile glands on base of midrib; leaves unlobed, ellipticoblong to ellipticobovate, 12.5-66 x 6.5-30 cm, slightly acuminate and shortly mucronate at apex, rounded to obtuse at base,

glabrous above and



beneath, entire; peduncles 1 or rarely 2-bifurcate, 1.5-12 cm long, pedicels 1.5-6.5 cm long; bracts minute, soon deciduous; floral tube cylindrical, 0.6-0.9 cm long,0.4-0.5 cm diameter al throat; flowers white, 4.5-5.5 cm diameter, 3.7-4 cm long; sepals white, oblong, 2.7-3.5 x 0.8-1.2 cm, white; petals similar to the sepals; corona 2 (rarely 3) series, yellow, filaments of outer series 1.4-2 cm long, dolabriform, inner series 0.1-0.2 cm long; ovary densely tomentose; fruit widely ellipsoid to subglobose, 3-4.5 x 2.5-4.3 cm, yellowish or cream; seeds 0.4-0.5 x 0.3-0.35 cm, reticulate.







### **Passiflora callistemma** L. Escobar 1994 Subgenus *Astrophea* Supersection *Astrophea* Section

Astrophea

Distribution: Colombia. Young stems reddish brown. Plants glabrous except for ovaries. Leafblades oblong, (4.7)10.2-12.5 cm long, (2.1) 5.3-6.0 cm wide, acute or abruptly acuminate at apex, rounded at



base, entire at margins, coriaceous, drying yellow-green, with 9-12 pairs of major lateral veins; foliar nectaries 2-4, oblong, scarlike, ca. 1 mm long, ca. 0.3 mm wide, along midrib on abaxial surface, distal to base of leafblade; petioles (1.2) 1.7-2.4 cm long, (0.6) 1.3- 1.5 mm diam.; stipules not seen. Peduncles paired or grouped in fascicles, 10-13 mm long, 0.8-0.9 mm diam., bracts linear, 1.3 mm long, 0.3 mm wide, yellow-brown. Flowers ca. 6 cm long, ca. 4 cm diam., borne erect, greenish-white; floral stipe 4-10 mm long, ca. 1 mm diam., glaucous; hypanthium cylindrical, ca. 9 mm long, 6 mm wide (pressed); sepals oblong, ca. 2 cm long, ca. 7 mm wide, subcoriaceous, greenish-white; petals oblong, subequal to sepals, ca. 6 mm wide, delicately membranaceous, white; corona in 4 series, filamentous, yellow; the outer series wavy, ca. 3 cm long, with filaments slightly dilated to 0.4 mm wide at apex; the second series ca. 5 mm long, dilated to ca. 0.7 mm at

apex; the third series ca. 3 mm long, ca. 0.2 mm wide, reddish at base; the inner series ca. 2.5 mm long, ca. 0.1 mm wide, reddish at apex; operculum erect, exserted above apex of hypanthium, ca. 1 cm long, reddish; ovary ovoid, ca. 3.6 mm long, ca. 2.1 mm wide, densely pubescent, with flattened, transparent, reddish trichomes to 0.2 mm long; styles slender, 6.2 mm long, 0.8 mm wide, pubescent. Fruits unknown.





### **Passiflora gironensis** C. Aguirre, M. Bonilla & A. Rojas 2016

### Subgenus Astrophea Supersection Pseudoastrophea Section Capreolata

Distribution: Colombia.

Liana with stem terete, slightly lignify, striate and glabrous, green when young and brown-yellow in mature plant. Tendrils absents. Petiole slender, striate, 1.8-3.0 cm. Stipules not seen. Leaf blade simple, entire at margin, polymorphic, sometimes oblong, acute at apex and slightly cordate at base, sometimes lanceolate, acute at apex and rounded at base, subcoriaceous, olive green with reddish venation more conspicuous on adaxial surface,  $9.9-15 \times 2.3-6.6$  cm, 8-12 pairs of major lateral veins, 6-8 laminar glands at the base of the midrib on the abaxial surface and at petiole, in two forms, one cleft scarlike with raised borders like a yellow halo, oblong to ca. round, 1.0-5.0 mm long, and other raised, small and translucent, above midrib and/or petiole, ca. round, solitary and small, 1.0-3.0 mm long. Petiole slender, striate, 1.8-3.0 cm. Stipules not seen. Peduncle paired or fasciculate, 1.4-1.6 cm, with 1-3 triangular bracts, 1-1.5 mm, bracts reddish yellow. Pedicel 1.8-2.1 cm. Inflorescence in leafless raceme with 2-6 greenish white, erect flowers, 3-5.4 cm long, ca. 9.4 cm diameter. Floral tube (hypanthium) cylindrical,  $0.5-0.8 \times 0.9$  cm. Sepals ensiform, greenish white,  $3.6-4.1 \times 0.5-0.9$  cm. Petals white, subequal in form and dimension to sepals. Corona yellow, in 3 series of filaments, the outermost series slender, filiform, curly and long (2–3.2 cm), the remaining series linear, progressively shorter, the second series ca. 1.3 cm long, the third series ca. 0.6 cm long, all these slightly dilated at apex (subcapitate). Androgynophore ca. 5 cm. Operculum erect, arising and wrapping 1/3 of the androgynophore, ca. 1.1 cm long. Ovary oblong, densely pubescent, 5 × 2 mm. Styles slender, densely pubescent with yellow trichomes, ca. 1.0 cm long. Fruit unknown.

### Passiflora engleriana Harms 1894

Passiflora caucaense Holm-Nielsen 1974
Subgenus Astrophea Supersection Astrophea Section
Astrophea



Distribution: Colombia.

Tree up to 5 meters high, with a close, round crown, the younger branches minutely pilosulous, purplish, subterete, the tips angulate; petioles about 2 cm. long, stout, rufohirtellous; leaves obovateoblong, 12 to 20 cm. long, 4 to 8 cm. wide, rounded and often emarginate at apex, gradually narrowed from above middle to a rounded base, entire, penninerved (lateral nerves 12 to 18 to a side, straight, arcuate only at ends; midnerve biglandular at very base, the glands about 2 mm. long, black), coriaceous, glabrous, dark green above, glaucescent beneath, the nerves and veins elevated and hirsutulous beneath; peduncles 2 to 4 cm. long (unbranched portion), once dichotomous, the branches 3 to 3.5 cm. long; bracts linear, about 2 mm. long; calyx tube campanulate-funnel-shaped, 8 mm. long, 6 mm. wide at throat, gradually narrowing to base; sepals oblong, about 2 cm. long, 5 to 6 mm. wide, obtuse, fleshy, reddish (?) without, white, reddish-streaked within, at length reflexed; petals oblong, slightly shorter and narrower than the sepals, at length reflexed, white; corona filaments in 2 series, the outer ones yellowish, broadly falcate-dilated, 9 to 11 mm. long, about 2 mm. wide at the widest point, the apex shortacuminate, the inner ones compressed, subdolabriform, 1.5 to 2 mm. long; operculum membranous, erect, about 2 mm. high, minutely pectinate; ovary ovoid, densely ferruginoustomentose.



### Passiflora frutescens (Ruiz & Pavon) Killip 1938 Subgenus Astrophea Supersection Astrophea Section Astrophea



Distribution: Peru.

Shrub or tree, the branchlets subterete, finely puberulous, dryingdark reddish brown; stipules soon deciduous; petioles 2.5 to 3.5 cm. long, stout, puberulous; leaves ovate, oblong-ovate, or oblongobovate, 20 to 25 cm. long, 12 to 14 cm. wide, obtuse and emarginate at apex, cordulate at base, penninerved, the principal lateral nerves about 2 to a side, the midnerve bearing 2 scarlike glands at base; peduncles solitary, once-furcate, the united part 4 to 4.5 cm. long, the branches 3.5 to 4 cm. long; calyx tube funnel-shaped, about 1 cm. long, enlarged to 9 mm. at throat, glabrous; flowers white, densely redspotted; sepals linear-oblong, 3 to 3.5 cm. long, 8 to 10 mm. wide,



obtuse, ecorniculate; petals subequal to the sepals, slightly narrower, obtuse; outer corona filaments subdolabriform, about 1.5 cm. long, enlarged just above middle to a width of 3 mm., bearing at the point of greatest width a knoblike projection.



#### **Passiflora lindeniana** Tr. & Planch. 1873 Passiflora ocanensis Planch & Linden 1873

Subgenus Astrophea Supersection Astrophea Section

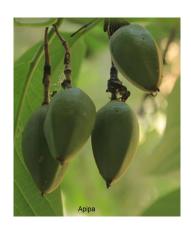


Distribution: Venezuela.

Tree, glabrous throughout, except the ovary; petioles up to 3 cm. long; leaves oblong-obovate, 10 to 15 cm. long, 5 to 10 cm. wide (or up to 25 cm. long, 15 cm. wide), subacute or slightly emarginate at apex, rounded, often slightly oblique at base, prominently penninerved (midnerve biglandular on under surface at base), membranous, glaucescent beneath; peduncles up to 4 cm. long, slender, once dichotomous, the undivided portion and the branches subequal; flowers white; calyx tube broadly campanulate, 1 to 1.2 cm. long, 0.8 to 1 cm. wide at throat; sepals lanceolate or oblong-lanceolate, 2.5 to 3 cm. long, 0.8 to 1 cm. wide, obtuse; petals 2 to 2.5 cm. long; corona filaments in 3 or 4 series, the outermost linear-spatulate or slightly dolabriform, about 1.3 cm. long, those of the inner 2 or 3 series broadly linear, 2 mm. long; operculum filamentose nearly to base; ovary sericeo-tomentose; fruit broadly ovoid, 4 cm. long, 2.5 cm. wide, glabrous, yellow, red-maculate.







### **Passiflora lindeniana** Tr. & Planch. 1873 Passiflora ocanensis Planch & Linden 1873

Subgenus Astrophea Supersection Astrophea Section Astrophea











### Passiflora sphaerocarpa Triana & Planch 1873

#### Passiflora pubera Planch & Linden 1873

### Subgenus Astrophea Supersection Astrophea Section Astrophea

Distribution: Colombia (5000-1625 m). Tree, 2 to 4 meters high, glabrous throughout except the ovary; petioles 1 to 2 cm. long; leaves obovate or ellipticoblong, 7 to 15 cm. long, 4 to 7 cm. wide, rounded and emarginate at apex, obtuse at base, penninerved (nerves



usually yellowish beneath, the midnerve biglandular at base, the principal lateral nerves 8 to 11 to a side), membranous, yellowish green above, usually glaucous beneath; peduncles simple or bifurcate, 1 to 2.5 cm. long including branches; bracts narrowly linear, 1.5 to 2 mm. long; flowers white; calyx tube broadly campanulate, 5 to 7 mm. long; sepals narrowly oblong, 2 to 2.5 cm. long, 5 to 6 mm. wide, obtuse; petals

obovate-oblong, slightly shorter than the sepals; corona filaments in 3 or 4 series, the outermost laterally flattened, subdolabriform, about 1 cm. long, attenuate above the dilated portion, the inner 2 or 3 series unequal (the longest 2 mm. long), dilated above the middle; operculum erect, 2 mm. high, fimbriate to the middle; ovary ovoid, sericeovelutinous; fruit globose.



### Passiflora sphaerocarpa Triana & Planch 1873

Passiflora pubera Planch & Linden 1873
Subgenus Astrophea Supersection Astrophea Section
Astrophea











### Passiflora macrophylla Spruce ex Mast. 1883 Subgenus Astrophea Supersection Astrophea Section Astrophea



Distribution: Ecuador

Tree, 3 to 4 meters high, without tendrils; petioles up to 3.5 cm. long; leaves ovate-lanceolate or oblong-ovate, 30 to 75 cm. long, 10 to 25 cm. wide, or larger, acuminate, rounded at base, glabrous, the midrib biglandular at base; peduncles once or twice dichotomous, 8 to 10 cm. long including the branches; flowers white without, yellow within(?); calyx tube cylindric, 1.2 to 1.8 cm. long, 4 to 5 mm. In diameter; sepals oblong, 2 to 2.5 cm. long, 3 to 5 mm. wide, obtuse; petals oblong, subequal to the sepals; corona filaments in 2 series, the outer slender, liguliform, not dilated, slightly shorter than the petals, the inner falciform, flat, 1 to 3 mm. long; operculum arising near base of tube, membranous, erect, short-filamentose; gynophore slender, 3 cm. long; ovary ovoid, finely tomentulous.





### Passiflora macrophylla Spruce ex Mast. 1883 Subgenus Astrophea Supersection Astrophea Section Astrophea













### **Passiflora putumayensis** Killip 1938

### Subgenus Astrophea Supersection Astrophea Section Astophea

Distribution: Colombia. Shrub or tree, glabrous throughout except the ovary, the branchlets subangular; petioles 2 to 3.5 cm. long; leaves ovatelanceolate, 19 to 25 cm. long, 8 to 11 cm. wide, gradually narrowed to an obtuse, mucronulate apex, rounded at base, entire, penninerved (lateral nerves 13 to 15 to a side; midnerve



biglandular on under side close to the base, the glands scarlike, about 2 mm. in diameter), membranous, green and sublustrous on both surfaces; peduncles 4 to 5 cm. long, slender, once dichotomous; bracts setaceous, 1.5 to 2 mm. long, soon deciduous; calyx tube broadly campanulate, 7 to 8 mm. Long and about as wide at the throat; sepals oblong, about 2 cm. long and 7 mm. wide, obtuse, white; petals similar to the sepals but narrower; corona filaments in 2 series, the outer about 1.5 cm. long, yellow, narrowly linear in lower half, dilated above middle, attenuate at apex, the inner few, filiform, about 3 mm. long; operculum membranous, about 3 mm. high, white, minutely denticulate; ovary ovoid, truncate at apex, white-tomentose.





### **Passiflora putumayensis** Killip 1938

Subgenus Astrophea Supersection Astrophea Section Astophea









#### Passiflora costata Mast. 1872

### Subgenus Astrophea Supersection *Astrophea* Section *Capreolata*

Distribution: Venezuela. Lianas; woody, tendrils robust, spines absent. Branches subcylindrical to cylindrical, striated, puberulous or pilose. Stipules  $0.1 \times 0.04$ -0.07 cm, linear-setaceous to linear -falcate, puberulous to pilos. Petioles 0.9–3.9 cm long, puberulous or pilose; 2 glands on abaxial surface, junction of leaf bald with petiole, in the main vein, ovate or elliptical. Leaf blades  $6.7-20.5 \times 4.0-13.7$ cm, obovate, broadly obovate or oblong-ovate, chartaceous or coriaceous, apex emarginated, rounded or mucronate, base subpeltate, rounded, adaxial surface glabrous, abaxial surface puberulous or pilo-



se; ca 18-36 glands along margin. Peduncles 0.8-1.3 cm long. Bracts  $0.1-0.2\times0.04-0.07$  cm, lanceolate-triangular, alternate. Pedicels 2.0-13.0 cm long. Flowers solitary, hypanthium broadly campanulate, 0.4-0.5 cm long, 0.7-1.2 cm in diameter; sepals  $2.4-3.7\times0.6-1.7$  cm, linear-ovate; petals  $2.4-3.1\times0.6-1.6$  cm, linear-oblong; corona comprises ca 8 series of filaments, first series 2.0-2.8 cm long, liguliform, second series 0.2-0.5 cm long, liguliform, other series 0.01-0.05 cm long, irregular, linear;



operculum 0.2-0.3 cm long, reflexed, apex with minutely denticulate margin; androgynophore 2.0-2.2 cm, trochlea funiform present, ovary  $0.5-0.9 \times 0.2-0.5$  cm, elliptical to obovate, velutinous or tomen-tose. Fruits  $5.5-7.9 \times 4.0-5.3$  cm, ovoid, puberulous.





# Passiflora bacabensis A C Mezzonato-pires, E Oliveira Silva & E Almeida de Oliveira 2021 Subgenus Astrophea Supersection Astrophea Section Capreolata

Distribution: Brazil (Mato Grosso).

Liana becoming woody when older, with woody ten-drils, but spines absent. Branches 1.6-4.1 mm in diam., brown, cylindrical, striate, glabrous. Stipules 0.8–1.0 mm long, narrowly triangular. Petiole 10.3–25.8 mm long, 1.5–2.1 mm in diam., glabrous; glands two, 2.2–2.5 × 1.1–1.3 mm, borne at the adaxial surface of the apex of the petiole, circular, oval or elliptic, their margin light yellow with a brown center. Leaf blades 8.1–  $14.0 \times 4.5 - 8.6$  cm, chartaceous to coriaceous, ovate, oblong, ovate-lanceolate or oblong-lanceolate, retuse, rounded or acute at apex, cordate or rounded at base, with abaxial and adaxial sur-faces glabrous; margin conspicuous, with 1–8 glands; sec-ondary veins 13–20, arcuate. Peduncle 3.8–8.8 mm long. Bracts 1.2–1.6 × 0.7– 0.8 mm, triangular or deltate, with glandular-serrated margins, alternate. Pedicel 3.3-6.2 mm long. Inflorescences racemose, axis 2.6-5.6 mm long; buds greenish to green-purple, flowers 26.1-41.4 mm in diam.; hypanthium 4.7-25.0 mm long, 2.0-4.5 mm in diam., cylindrical, glabrous; sepals 10.8-20.1 × 3.5-5.4 mm, linearoblong, obtuse at apex, with abaxial and adaxial surface glabrous, green or greenish-purple; petals subequal to sepals, linear-oblong, rounded or obtuse at apex, gla-brous, white; corona in four series of filaments, yellow to orange-yellow spotted with red, only the innermost series white; filaments of the first (outer) series 12.6–14.7 mm long, their apical portion 2.0-2.4 mm long, the widest portion 1.8-2.3 mm wide, 0.6-0.8 mm wide at base, lat-erally inserted, sinuous, dolabriform, attenuate at apex, slightly verrucous on the margin above the widest por-tion; filaments of the second series  $2.5-3.5 \times 0.4-0.5$  mm, linear or dolabriform; filaments of the third series 1.7 × 0.2–0.3 mm, linear, reflexed or non-reflexed; filaments of the fourth (inner) series 2.4–2.6 mm long, capillary and reflexed; operculum 9.8-13.7 mm long, its apical portion 0.7-0.9 mm long lacerate, 5-parted ca 2.5–3.0 mm long, inserted at 4.8–10.0 mm from the base of the hypanthium, erect, tubular, membranaceous, exserted; androgynophore 18.0-38.0 mm long; trochlea absent; staminal filaments 4.8-6.4 × 0.5-0.9 mm, glabrous; anthers  $6.0-7.3 \times 2.0-3.2$  mm; ovary  $2.6-3.3 \times 1.9-2.2$  mm, oblong, velutinous; style 6.1-8.2 mm long, 0.8-1.0 mm diam. Fruits immature  $51.5-55.1 \times 21.0-23.5$  mm, ellipsoid to ovoid, puberu-lous. Seeds  $0.5-0.6 \times 10^{-2}$ 0.40–0.55 mm, reticulate–foveolate.

### Passiflora cauliflora Harms 1906

### Subgenus Astrophea Supersection Astrophea Section Capreolata



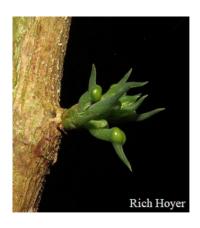
Distribution: Peru (Amazonian). Scandent shrub, glabrescent throughout except the ovary; petioles about 3 cm. long, biglandular near apex;

leaves oblong, 15 to 18 cm. long, 6 to 10 cm. wide, obtusely acuminate or acute, rounded at base, penninerved (principal lateral nerves 9 to 11 to a side, prominent beneath), thickcoriaceous, with a dark, thickened band at the margin; flowers "brownyellow," borne in axillary fascicles, the rachis nodulose, up to 2 cm. long, the pedicels about 3 mm. long; calyx tube cylindric, 1.5 to 2 cm. long, 3 to 4 mm. In diameter; sepals oblong, about 2 cm. long and 6 mm. wide, obtuse; petals similar to the sepals; corona filaments in 3 series, the outermost subdolabriform, 1.2 to 1.5 cm. long, those of the 2 inner series narrowly linear, 2 to 3 mm. long; operculum borne at middle of tube, erect, about 1 cm. high, cleft in the upper third into 5 linear segments; ovary narrowly obovoid, finely and softly ferruginoustomentellous.



### Passiflora cauliflora Harms 1906 Subgenus Astrophea Supersection Astrophea Section Capreolata











### Passiflora ceratocarpa Silveira 1930

### Subgenus Astrophea Supersection Pseudoastrophea Section Capreolata

Distribution: Brazil, Plateaux of Guyana.

Lianas or arborescent lianas, tendrils robust, spines absent. Branches subangular or cylindrical, striated, vil-lous or densely puberulous. Stipules not seen. Petioles or triangular glands on abaxial surface, lateral to junc-tion of leaf blade and petiole. Leaf blades 5.0- $17.4 \times 4.6 - 14.8$ cm, ovate, broadly ovate, membranaceous



in young leaves and slightly coriaceous in mature leaves, apex emarginate, obtuse or acute, base chordate, adaxial surface pilose and abaxial surface velutinous. Peduncles 0.2–0.6 cm long. Bracts  $0.04 \times 0.06$  cm, linear-lanceolate or triangular, alternate. Pedicels 0.7–0.8 cm long. Flowers solitary or in pairs, hypanthium cylindrical-campanulate, 0.5–0.8 cm long, 0.2–0.3 cm in diameter; sepals 1.5– $1.9 \times 0.4$ –0.5 cm, obovate-lanceolate, linear-oblong; petals 1.7– $1.9 \times 0.2$ –0.3 cm, linear-oblong; corona comprises 2 series of filaments, external series 0.5–0.7 cm long, linear-falcate, internal series 0.01–0.06 cm long, triangular or linear-triangular; operculum 0.1–0.5 cm long, erect, filamentous, apex fimbriate, papillose; androgynophore 1.9–0.0 cm long, trochlea discoid present; ovary 0.3– $0.5 \times 0.2$ –0.4 cm, oblong, velutinous, densely velutinous. Fruit 3.3– $3.6 \times 2.6$ –0.7 cm, obovate, puberulous.







### Passiflora cerradens (e)(is) Sacco 1971

### Subgenus Astrophea Supersection Astrophea Section Capreolata

Distribution: Brazil (Mato Grosso). Lianas; tendrils thin, spines absent. Branches cylindrical, striated, glabrous. Stipules 0.1 × 0.03-0.04 cm, narrowly lineartriangular, glabrous. Petioles 1.0-1.8 cm long, glabrous; 2obovate, elliptical glands on the adaxial sur



-face, near the apex of the petiole. Leaf blades 7.0–17.3 × 3.3–7.3 cm, ovate, ovate-lanceolate or oblong-lanceolate, coriaceous, apex obtuse-mucronate, rarely emarginated, base chordate, slightly chordate, truncate or obtuse, both surfaces glabrous. Peduncles 0.4–2.4 cm long. Bracts 0.2–0.4 × 0.07–0.1 cm, triangular to linear-triangular, verticillate, margin serrate with glands. Pedicels 0.2–0.7 cm long. Flowers solitary or in pairs, hypanthium cylin-drical, 8.8–22.1 mm long, 1.3–6.2 mm in diameter; sepals 2.3–2.7 × 0.4–0.8 cm, oblong-lanceolate; petals 2.1–2.3 × 0.4–0.7 cm, oblong-lanceolate; corona com-prises 5–7 series of filaments, first series 1.0–1.1 cm de long, dolabriforme, second series 0.2–0.3 cm long, linear-spatulate, erect, third series 0.2–0.3 cm long, linear-capillary, erect; fourth series 0.2 cm long, linear-capillary, erect, fifth series ca 0.2 cm long, capillary, erect or reflexed towards hypanthium, sixth and seventh series 0.2–0.3 cm long, capillary, reflexed towards hypanthium; operculum 1.4–1.5 cm long, divided into 5 slits, erect, tubular, lacerated at apex; androgynophore 3.4–3.7 cm, trochlea absent; ovary 0.1–0.5 × 0.2 cm, elliptical, oblong or subglobose, velutinous. Fruits 4.2–4.3 × 2.5–2.7 cm, ellipsoid, puberulous, with persistent stylets.







#### Passiflora chlorina L. Escobar 1989

### Subgenus Astrophea Supersection Astrophea Section Capreolata

Distribution: Brazil (Minas Gerais). Lianas with concentric rings of secondary wood and stout tendrils. Plants pubescent with straight to curved yellow-green trichomes ca 0.1 mm long, the adaxial surface of leaves and inner flower parts glabrous. Young stems with smooth, dark red-black, flaking bark. Leaf blades obovate to elliptic, 3.8-5.7 cm long, 2.3-3.5 cm wide, rounded and retuse at apex, mostly acute at base, entire at margins, stiffly coriaceous, lustrous on adaxial surface, with scattered trichomes on mid vein, drying reddish brown; lateral veins 5-7, with expanded fine veins forming an incrassate reticulum on abaxial surface; petioles 8.5-11.0 mm long, 1.1-1.2 mm diam, with 2, paired, subspherical, bordered nectaries 1.5-2.0 mm diam below blade on adaxial or lateral surfaces; stipules triangular, ca 3 mm long, ca 1.2 mm wide at base, deciduous. Peduncles stout, solitary in leaf axil, 2.8-7.0 mm long, 1.1-1.5 mm diam; bracts triangular, ca 1 mm long, ca 0.5 mm wide, reddish. Flowers narrowly campanulate, ca 3 cm long, 2.0-2.5



cm diam, white; flower stipe stout, 4-5 mm long, 1.1-1.2 mm diam; hypanthium campanulate, 8-9 mm long, 3.2-3.5 mm wide at base, ca 6 mm wide at apex; sepals oblong, 18-20 mm long, 4.3-5.0 mm wide, subcoriaceous; petals subequal to sepals, membranaceous; corona in 2 series, at apex of hypanthium, the outer ca 9 mm long, ca 1 mm wide at base, abruptly widening ca 2.5 mm from apex to 1.5 mm, then tapering to blunt apex; the second series linear, ca 3 mm long, ca 0.2 mm wide, bent to ca 45 degree angle in upper 1/3; operculum erect, arising ca 3 mm from base of hypanthium, ca 3 mm long, composed of fleshy, papillose filaments; ovary oblong, ca 3.5 mm long, ca 2 mm wide, 12 ribbed, densely pubescent, with straight, tan trichomes; styles ca 2.3 mm long, ca 0.6 mm diam, pubescent ca 2/3 their length from base. Fruits unknown.



### Passiflora faroana Harms 1929

### Subgenus Astrophea Supersection Astrophea Section Capreolata

Distribution: Brazil (Para). Subscandent shrub, glabrous throughout except the ovary; petioles 5 to 10 mm. long, biglandular at junction with blade, the glands scarlike; leaves ovate or broadly ovateoblong, 4 to 10 cm. long, 3 to 6 cm. wide, obtuse and sometimes emarginate at apex, rounded at base, subcoriaceous, conspicuously reticulate-veined and sublustrous on both surfaces; peduncles solitary, 1 to 5 mm. long at anthesis, up to 15 mm. long in fruit, corrugate; flowers white, redmaculate; calyx tube funnelform, about 1 cm. long; sepals linearoblong, 1.5 cm. long, 4 mm. wide, carinate distally; petals linear, slightly shorter than the sepals, about 2 mm. wide; corona filaments in 2 well defined and several poorly defined series, the outermost narrowly linear, 1 cm. long, falcate-dilated above middle and vermcose along margin, those of the second series adjacent to the preceding, liguliform, about 2 mm. long, the succeeding filaments borne in 3or 4 irregular rows at middle of tube; operculum erect, borne just below middle of tube, about 3 mm. high, cleft in upper third into broadly clavate segments; ovary ovoid, hexagonal, puberulent; fruit subglobose, 2 cm. in diameter sparingly puberulent; seeds obovate, 5 mm. long, 3 mm. wide, coarsely reticulate.







### Passiflora haughtii Killip 1938

### Subgenus Astrophea Supersection Astrophea Section Capreolata

Distribution: Colombia (100-700 m). A large liana but apparently without tendrils, the stem densely rufo-hirsutulous; stipules linearlanceolate, about 2.5 mm. long, soon deciduous; petioles 1 to 1.5 cm. long, stout, eglandular; leaves oblanceolate, 16 to 30 cm. long, 6 to 1narrowed at the base, entire, penninerved (nerves about 12 to 14 to a side, the midnerve biglandular with scarlike glands close to its base), membranous, glabrous above, light yellowish green beneath, hirsutulous beneath, especially on nerves and veins; peduncles 2.5 to 3.5 cm. long, once dichotomous, the common peduncle and the branches subequal, densely hirsutulous; bracts subulate, 1.5 to 2 mm. long, soon deciduous; calyx tube campanulate, about 1 cm. long and 1 cm. in diameter at the throat, densely hirsutulous without; sepals linearoblong, about 3 cm. long, 9 to 10 mm. wide, hirsutulous without, greenish without, white within; petals similar to the sepals, about 2.5 cm. long and 7 mm. wide, glabrous, white; corona filaments dark brown, puberulent, in 5 series, the outermost 1.5 cm. long, laterally compressed, dolabriform, crenulate along the dilated part, subacute, the filaments of the second series ligulate, 6 to 7 mm. long, those of the other 3 series filiform, successively shorter, 4 to 1 mm. long; operculum tubular, erect, about 1 cm. high, exserted, erose, reddish; ovary ovoid, sulcate, truncate at apex, densely hirsute-tomentose.







### **Passiflora hexagonocarpa** Barb. Rodr. 1891 Subgenus *Astrophea* Supersection *Astrophea* Section Capreolata



Distribution: Brazil (Amazonas).

Scandent shrub with a few tendrils, essentially glabrous throughout, only the ovary pubescent; petioles 1.5 to 2 cm. long; leaves ovate-lanceolate or oblong-lanceolate, 5 to 8 cm. long, 2 to 5 cm. wide, obtuse, rounded at base, penninerved (lateral nerves 6 to 8 to a side, the midnerve biglandular at base), coriaceous, bright green and lustrous on both surfaces, prominently reticulate; peduncles solitary, 1 to 3 cm. long; calyx tube broadly funnel-shaped, 2 to 2.5 cm. long, nearly 2 cm. wide at throat; sepals ovate-lanceolate, 1.5 to 2 cm. long, about 1 cm. wide at base, subobtuse, conspicuously nerved, green without, white within; petals oblong, slightly shorter than the sepals, white; corona filaments in 2 series, the outer narrowly linear, about 1 cm. long, enlarged on one side near apex, short-attenuate at apex, verrucose along the margin of the enlarged portion and the apex, the inner filaments few, tuberculiform, less than 1 mm. long; operculum borne about 6 mm. above base of tube, erect, 2 mm. high, flabellatelobed and irregularly lacerate-fimbriate; ovary narrowly ovoid, densely rufotomentulous; fruit ovoid, 7 to 8 cm. long, about 4 cm. in diameter, sharply 6-angled, minutely and scantily puberulent; seeds oblong-obovate, about 5 mm. long and 3 mm. wide, coarsely reticulate, the axis slightly curved.





### Passiflora jussieui Feuillet 2010

#### Passiflora citrifolia (Appelé par Mast. en 1872) Subgenus Astrophea Supersection Astrophea Section Capreolata

Distribution: Plateaux of Guyana.

Scandent shrub when young, then liana, glabrous throughout except the ovary; trunk woody, young stems terete, striate; stipules narrowly linear, soon deciduous. Leaves alternate; petioles dark red, 1.5-4.5



cm long, adaxially 2-glandular at apex, the glands sessile, swollen, becoming saucer-shaped when dry, yellow; blades coriaceous, oblong or ovate-oblong, 12-20 × 5-12 cm, shortly acute and truncate or rounded at base, abruptly shortacuminate at apex, margin entire, when dry there is abaxially a conspicuous marginal band, slightly recurved, narrow, dark brown or blackish when dried, venation pinnate, main lateral veins 4-7(-9) each side of the midrib, strongly arcuate toward the margin, prominently reticulate, when fresh pale green becoming dark with age, paler green abaxially. Flowers solitary and axillary on young stems or in cauliflorous racemes with undeveloped leaves, racemes often short, 1-5 cm long, sometimes as long as 50 cm, peduncles 4-6 mm long, bracts scale-like, glandless, early deciduous. Flower tube cylindric, 1.5-2 cm long, white to green, often heavily marked with brownish red; sepals 5, lingulate, about 3 × 1 cm, spreading and often recurved along the tube, outside colored like the tube, inside white; petals similar to the sepals in shape and habit, white; corona filaments in 4-5 series, the outermost subdolabriform, spreading, 18 mm long, yellow-green, heavily marked with dark red except at base and bright yellow apex, those of the next 2-3 series successively shorter, oblique to erect, colored like the first row, the innermost 1-2 mm long, filiform, some slightly capitate, reflexed into the tube, white; operculum borne halfway up in the floral tube, slightly exerted, tubular, membranous at base, laciniate at apex, white, light purple at apex; ovary narrow barrel-shaped, somewhat triangular in transverse section, 4-5 × 2-2.5 mm, densely short white- to green- or rufousvillous. Fruit hanging, fusiform, hexagonal, green, glabrous.





### **Passiflora jussieui** Feuillet 2010

Passiflora citrifolia (Appelé par Mast. en 1872) Subgenus Astrophea Supersection Astrophea Section Capreolata











### Passiflora mariquitensis Mutis ex L. Uribe 1954

### Subgenus Astrophea Supersection Astrophea Section Capreolata

Distribution: Colombia. Woody liana shrube with weak tendrils. Stem angulate, striate, glabrous. Tendrils green, glabrous. Stipules linearsubulate, 1.5–3 mm long, 0.5 mm wide, green, soon deciduous. Petioles strongly grooved, 1.5-2.5 cm long, 0.3 cm wide, green, glabrous, laterally with 2 flattened glandules at the apex. Leaves unlobed, oblong, 9–19  $\times$  4.4–6.6 cm wide, obtuse, subobtuse or somewhat emarginate at the apex, obtuse or round at the base, penninerved (lateral nerves 6 or 10 on each side), coriaceous, entire and undulate at the margins, glabrous, green. Peduncles solitary, once or twice bifurcate (somewhat slender tendril in bifurcation), 2–5.5 cm long, 0.2-0.3 cm wide,



glabrous, green. Pedicels green, 0.8-1.2 cm long, 0.3 cm wide, glabrous. Bracts setaceous, alternate disposition, 1-1.5 mm long, 0.5 mm wide, green. Flowers fragrant, semierect to pendent, 3.3-3.5 cm long (from the base of the nectary chamber to the ovary apex)  $\times$  6.0–7.2 cm wide. Nectary chamber glabrous, 6–7  $\times$ 9-10 mm, green outside and greenish-yellow inside, nectary ring (annulus) greenish-yellow. Hypanthium campanulate, 3-4 mm long × 10-11 mm diameter (at the base of the sepals), glabrous, green outside, and inside. Sepals oblong, 3.3–4 × 0.8–1.1 cm wide, adaxial surface white, abaxial surface green with white border (two of them green), glabrous, reflexed. Petals white, linear-oblong, 3.1-4.5 × 0.6-1.3 cm wide, glabrous, reflexed. Corona filaments in four series, yellow to white at the base; the outermost 1.6–1.9 cm long, subdolabriform, dilated at the apex to a width of 4 mm tapering gradually to the base (2 mm), those of the second series spatulate, 5-8 × 1 mm wide; the third series gradually shorter, 4-6 mm long; the inner series 4 mm long, minute, filiform, white. Operculum tubular, membranaceous, erect, exserted above apex of hypanthium, ca 1.0-1.1 cm high, minutely denticulate at the margin, greenish-yellow. Limen absent. Androgynophore greenish to yellow, 3.3–3.6 × 0.3 cm in diameter. Gynophore absent, 1.5–1.6 mm long, green. Staminal filaments greenish-white, 1.0-1.1 cm long. Anthers white, 5-6 mm long. Pollen white to deep yellow. Ovary oblong truncated, 5-6 mm long, 9 or 10 ribbed, densely tomentose, olive-green. Styles greenishwhite, 0.8–1.0 cm long, hairy. Stigmas greenish-yellow, 2–3 mm in diameter. Fruit unknown.

#### Passiflora quelchii N. F. Brown 1901

#### Subgenus Astrophea Supersection Astrophea Section Capreolata

Distribution: Guyana. Shrub or tree, without tendrils, glabrous throughout; stipules subulate, soon deciduous; petioles 1 to 1.5 cm. long, biglandular at apex, the glands about 2 mm. in diameter, sessile; leaves cuneateoblong, 8 to 12 cm. long, 2 to 4 cm. wide, obtuse or shortacute at apex, gradually tapering from the upper quarter in a slightly curved line to an acute base, strongly undulate, penninerved



(lateral nerves 12 to 15 on each side, spreading, anastomosing close to margin in a series of broad loops); flowers in short racemes or fascicles, the axis up to 2.5 cm. long, the pedicels 3 to 5 mm. long; calyx tube cylindric, about 2.5 cm. long, 4 to 5 mm. wide at throat; sepals oblong-lanceolate, 2 to 2.5 cm. long, 5 to 7 mm. wide, obtuse or subacute; petals similar and nearly equal to the sepals; corona filaments in a single series, subdolabriform, 1.5 cm. long, the dilated portion minutely tuberculate; operculum borne near the base of the tube, filamentose, the filaments linear-falcate, about 2 mm. long, erect; ovary oblong, 9-grooved.





#### Passiflora mutisii Killip 1938

### Subgenus Astrophea Supersection Astrophea Section Capreolata

Distribution: Colombia. Subscandent shrub (?), without tendrils or with a few weak ones: branchlets subterete, minutely puberulent, at length glabrescent; stipules soon deciduous; petioles 1.5 to 2 cm. long, stout, geniculate at apex, minutely puberulent; leaves oblong, 8 to 18 cm. long, 4 to 7 cm. wide, subcaudateacuminate, rounded at base, entire, penninerved (lateral nerves 10 to 12 to a side, the midnerve biglandular on under side close to its base, the glands scarlike), subcoriaceous, bright green when dry, glabrous; peduncles once dichotomous, the common peduncle 1.5 to 2 cm. long, the branches 1 to 1.5 cm. long; bracts subulate, about 1.5 mm. long, mucronulate; calyx tube campanulate, about 8 mm. long, and 8 mm. in diameter at the throat, glabrous; sepals linearlanceolate, about 3 cm. long and 4 mm. wide, acuminate,

green without,



greenish white and mottled with red within; petals subequaling the sepals and slightly narrower, greenish yellow; corona filaments in 1 (or 2?) series, ligulate, about 2 cm. long, not dilated; ovary ovoid, truncate at apex, rufo-tomentose.

### **Passiflora maguirei** Killip 1948

### Subgenus Astrophea Supersection Astrophea Section Capreolata

Distribution: Guyana, Brazil (Amazonas). Vine woody with tendrils, glabrous except the ovary; stem terete; stipules microscopic; petioles 1.5-5 cm long, stout, with 2 glands at apex; leaves unlobed, oblong, 12-35 x 5-12.5 cm, acuminate or abrutly short-acute at apex, rounded or cuneate at base, coriaceous, entire; pedicels up to 1 cm long; bracts subulate, 0.2-0.3 cm long; floral tube funnel-shaped, 1.5-2 cm long, ca.0.8 cm at throat, longitudinally striate; flowers greenish white, 5-6



cm diameter, ca. 4.5-6 cm long, in dense fascicles; sepals white inside, greenish outside, linear-oblong, 2.5-3.5 x 0.6-0.8 cm; petals white, as long a sepals, ca. 1.2 cm wide; corona 4 series, yellow, outer series 2-2.2 cm long, linear-dolabriform, subulate at the apex, inner series decreasing in length from 0.1 to 0.6 cm; ovary ovoid, puberulent; fruit unknown.





### Passiflora pittieri Mast. 1897

### Subgenus Astrophea Supersection Astrophea Section Capreolata

Distribution: Costa Rica. Small tree or shrub, with weak tendrils sometimes present at the ends of the branches; branches angulate, striate, minutely puberulent or glabrescent; stipules linearsubulate, 2 to 3 mm. long; petioles strongly grooved, puberulent, 1 to 1.5 cm.



long, bearing at apex 2 inconspicuous, flattened glands; leaves oblong or obovate, 8 to 10 cm. long, 4 to 6 cm. wide, entire, abruptly acuminate at apex, cuneate at base, penninerved (lateral nerves 6 or 7 to a side), glabrous, subcoriaceous; peduncles solitary, once or twice bifurcate, the pedicels articulate above middle; bracts setaceous, 1.5 to 2 mm. long; flowers 5.5 to 6 cm. wide; calyx tube cylindric-campanulate, 8 to 10 mm. long, 6 to 7 mm. in diameter at throat; sepals oblong, 3.5 to 4 cm. long, about 8 mm. wide, obtuse, slightly fleshy; petals linear-oblong, 2.5 cm. long, about 7 mm. wide, thinner than the sepals; corona filaments in 5 series, the outermost subdolabriform, 1.5 cm. long, dilated near apex to a width of 2 mm. tapering gradually to base, those of the second series spatulate, 5 mm. long, 1 mm. wide, those of the succeeding series gradually shorter, filiform; operculum membranous, arising just below the throat of the tube, erect, about 6 mm. high, partially exserted, minutely denticulate; ovary oblong, densely ferruginous-tomentose.





### **Passiflora tina** R.Boender & T. Ulmer 2001 Subgenus Astrophea Supersection Astrophea Section Capreolata

Distribution: Ecuador (700 m). **Plantes** ligneus Treelet turning into woody vine up to 9 m tall, with well developed tendrils on younger stems, glabrous throughout with exception of ovary and styles; stem terete, brown, younger parts green; stipules setaceous, 0.1-0.2 cm long, soon deciduous; petioles 0.9-1. 5(-1. 9) cm long, 2-glandular at junction to midrib of blade, with sessile oval nectaries ca. 0.2 cm long and 0.1 cm wide; leaves entire, oblong to oblongovate, (7.5-)12.5-25(-35) cm long, (3.5-) 5-9(-13.5) cm wide, acute or abruptly acuminate at apex, cuneate or rounded at base, with 9-12 pairs of major lateral veins, subcoriaceous, drying olive-green; peduncles grouped in dense fascicles on old stems, 0.5-0.7 cm long; bracts



subulate, 0.2-0.3 cm long; flowers 3.5-5.5 cm long, 6-7.5 cm in diameter, white with rose to purplish-brown and yellow corona; floral stipe 0.4-0.6 cm long, up to 0.3 cm in diameter; floral tube (hypanthium) cylindrical to campanulate-cylindrical, 0.8-1.2 cm long, 1-1.5 cm wide at apex, tapering towards base; sepals oblong, 2.9-4.1 cm long, 0.8-1.3 cm wide, outside green with fine darker lines, inside white tinged greenish on the edges, obtuse, fleshy; petals oblong, nearly as long as the sepals, 1-1.5 cm wide, white, membranaceous; corona in 5 series, outer series curved, forming a campanulate structure around the androgynophore, filaments of outer series (44-)47-53, laterally compressed, wavy, creme at base, purplish-orange to purplish-brown above middle and yellow at the apex, (2-)2.3-2.8 cm long, 0.2 cm wide at base, abruptly dilated in upper third, 0.4 cm wide, tapering to apex, ca. 0.1 cm wide, filaments of second series laterally compressed, 0.9-1.3 cm long, dilated up to 0.2 cm near apex, creme to yellow at base, tinged more and more purple above middle, those of third series laterally compressed, 0.6-0.8 cm long, about 0.1 cm wide, purplish-orange to purplish-brown, those of fourth series filiform, about 1 cm long, inserted inside the hypanthium, curled in lower third, erect in upper half, those of inner series narrowly linear, about 0.5 cm long, placed 0.3 cm above base of operculum; operculum inserted slightly above middle of hypamhium, tubular, erect, exserted above apex of hypanthium, irregulary cleft in upper half, 1-1.5 cm long,

reddish; androgynophore 3-3.5 cm long, reddish; ovary ovoid, ca. 0.5 cm long, ca. 0.3 cm wide, densely pubescent; styles ca. 1 cm long and 0.2 cm wide, densely pubescent; fruit unknown.





#### Passiflora vescoi Rignon 2003

#### Subgenus Astrophea Supersection Astrophea Section Capreolata

Distribution: French Guyana. Large woody vine reaching 40m high, glabrous except the ovary and styles; stem cylindrical, woody, tendrils axillary; stipules greenish, semilanceolate, with an orange tip, quickly obsolete, about 0.5 mm long. Leaves simple, alternate, petiole 22-28 mm long, terete, strongly compressed, bearing 2 sessile shiny dark green glands, discoid in shape. Blade broadly elliptic to oblanceolate, 8-18 × 5-13 cm, obtuse to rounded and mucronate at the apex, subcoriaceous, margin entire sub-cordate at base, 15 to 20 veins, leaf colour dark green above, underside lighter shade of green. Flowers solitary, axillary, very strongly perfumed. peduncle green, erect or subhorizontal, 4-5 cm long, having 3 small green bracts, triangular,

compressed c.2 mm



length; hypanthium  $1 \times 1.6$  cm, broadly campanulate, pale green, broader than long, sepals  $38-40 \times 17-18$  mm, externally light green, internally white, petals  $36-38 \times 11-13$  mm, white, more membranous; corona in 3 series, the outer series filamentose, orange-yellow with a red base, fleshy,  $30-36 \times 4$  mm, laterally compressed, abruptly acuminate for c. 20 mm from their base and curved outward, the inside series orange-red in colour, 4-5 mm long, laterally compressed, the following series reduced with tiny filaments bordering the operculum; operculum membranous, 3 mm long, attached 6 mm from the base of floral tube, recurved at the tip, margin entire; nectar disc annular, fleshy, white mottled with yellow and red near the

edges; ovary pubescent, slightly striate, yellow, c. 8 mm in length; styles clavate, pubescent, green c. 1 cm long, stigma green c. 4 mm diameter. Fruit unknown.





#### Passiflora nuriensis Steyerm. 1968

# Subgenus Astrophea Supersection Astrophea Section Capreolata

Distribution: Venezuela. Frutex scandens, ramulis glabris; foliis petiolatis, petiolis 10-20 mm longis glabris apice biglandulosis glandulis sessilibus oblongis 2-3 mm longis onustis; laminis coriaceis oblongis vel lanceolatooblongis apice obtusis vel truncatis aut rotundatis aut subacutis basi rotundatis vel late obtusis 9.5-13 cm longis 4 -6.5 cm latis utrinque glabris, nervis lateralibus utroque latere 8-10 ante marginem 1-3 mm conspicue anastomosantibus, venulis tertiaiis utrinque prominente reticulatis; inflorescentiis axiliaribus caulifloris e ramulis vetustioribus nascentibus saepe 3 floris vel cum 3-5 pedicellis bracteatis 2 mm apice biglandulosis in acumem rigidum spiniformem lanceolatum 1.5-2 mm longum disnentibus; bracteola sub pedicello deltoideo-avata acuta 0.5 mm longa pulverulenti; floribus 3 cm longis; calycis tubo subcylindrico 13 mm longo 8-9 mm lato glabro, lobis erectis apice incurvatis subcoriaceis oblongis obtusis 14-15 mm longis glabris; petalis lobos calyicis plus minusve aequantibus paullo te-



nuioribus quam lobis calycis anguste oblongis apice rotundatis 10 mm longis 4.5 mm latis glabris ; corona 3-4-seriata, corona exteriori 15-20 dentibus carnosis incrassatis dolabriformibus erectis 2 mm longis 1 mm latis praeditis ; corona intermedia interiorique appendicibus plurimis imbricatis subauricularibus vel rhomboideo-oblongis carnosis brevibus 0.3-0.5 mm longis praeditis in ordinibus catribus verticalibus longitudinalibus insidentibus, ordinibus superioribus intermediatis-que paullo longioribus quam ordinibus infimis ; operculo supra basin tubi amplectentis gynophorum 2.5 mm affixo, ad basim 2/3-3/4 longitudinem in quinque partes erectas carnosas ovato-oblongatas fere disjunctas 4 mm longas 1.5 mm, latas marginibus superioribus subcrenulatis vel irregulariter undulatis apice subtruncatas vel late rotundatas basi incrassatas fisso, inferne tubuloso ; gynophoro 14-15 mm longo ; ovario angulato glabro at papillato ; antheris oblongis 5.5 mm longis.

#### **Passiflora plumosa** Feuillet & Cremers 1984 Subgenus Astrophea Supersection Astrophea Section Leptopoda

Distribution: French Guyana. Large woody liana, glabrous throughout except for the ovary; stipules linear, obsolete and very quickly deciduous, about 1 mm long, less than 0.5mm wide; petiole 20-35 mm long, canaliculate, bearing 2 opposite glands slightly protruding in the distal upper side just below the blade; blade entire, elliptic, 8-18 cm long and 3 to 7.5 cm wide, rounded to oblique at the base, acute to acuminate at the apex, margin slightly wavy. Inflorescences paired, or racemose in opposite pairs, cauliflorous, pseudoracemes up to 2 cm long, sometimes ending in a leafy twig



with underdeveloped leaves; peduncles short, subhorizontal, about 1cm long; peduncles 7 to 8 mm in length, bearing 3 small bracts near its base that appear somewhat scaly, <1 mm; flowers greenish to greenish white with a yellow corona; hypanthium 6 to 9 mm long, cylindrical; sepals greenish white to white adaxially, green abaxially, occasionally mottled with purple, linear oblong to oblong in shape, 16 x 5 mm; petals similar to the sepals, white throughout, membranous; corona in 4 series, yellow to white stained with purple, the outer 3 series outfacing, yellow to white stained purple, layered (?), the outermost series 6.4 mm, the inner two series about 3 mm, the innermost series consists of small white filaments that are branched to somewhat feathery, plumose; operculum up to 4 mm from the base of the tube, erect, laciniate at the top; androgynophore 10 mm in length; limen absent; ovary hairy to tomentose, slightly reddish in colour, trine; styles erect, 5 mm long, free to the base; fruit not seen.







#### Passiflora leptopoda Harms 1917

#### Subgenus Astrophea Supersection Astrophea Section Leptopoda



Distribution:Brazil and Guyanese plateaus

Scandent shrub, without tendrils (?), glabrous throughout except the ovary; petioles up to 2 cm. long; leaves oblong or broadly lanceolate, 10 to 18 cm. long, 5 to 8 cm. wide, obtuse or obtusely acuminate, rounded at base, subcoriaceous, penninerved, the principal lateral nerves about 8 to a side, the midnerve biglandular at base beneath; inflorescence racemose, the rachis 4 to 5 cm. long, the pedicels very slender, 4 to 5 cm. long, widely divaricate or pendulous, articulate near base, the portion below the point of articulation somewhat stouter; bracts setaceous, 3 to 4 mm. long, the bractlets setaceous, 1 to 1.5 mm. long, borne at the point of articulation of the pedicels; calyx tube shortcylindric, about 1.2 cm. long, 4 to 5 mm. in diameter, enlarged at base; sepals linear-lanceolate, 4 to 5 cm. long, 3 to 4 mm. wide, acute or subobtuse, white; petals similar to the sepals, slightly shorter and narrower; corona filaments in several series, the outermost about 3 cm. long, liguliform in lower half, very slender, almost capillary in upper half, the succeeding indefinite series consisting of a mass of plumose, reflexed, white filaments 3 to 4 mm. long; operculum membranous, erect, entire; gynophore slender, about 3.5 cm. long; ovary narrowly ovoid, sericeo-tomentose; fruit globose, about 2.5 cm. in diameter, subquinquangular, glabrous.



# **Passiflora candida** Poepp & Endl. 1871 Subgenus Astrophea Supersection *Pseudoastrophea* Section *Pseudoastrophea*

Description: Brazil and Guyanese plateaus High-climbing shrub with stout tendrils, the stem terete or subangular, ferruginoustomentulous; stipules soon deciduous; petioles stout, 2 to 2.5 cm. long, biglandular at apex, the glands sessile, ovate, 2.5 to 3 mm. long; leaves broadly ovate or ovateoblong, 8 to 18 cm. long, 7 to 14 cm. wide, rounded,



truncate, or short-acuminate at apex, rounded at base, remotely and obscurely callous-denticulate in upper half, penninerved (lateral nerves about 10 to a side), coriaceous, glabrous above, rufo-hirsutulous beneath on the prominent nerves and veins; peduncles solitary or in pairs, stout, clavate, 5 to 8mm. long, tomentulous; flowers white, very fragrant; calyx tube broadly funnelshaped, 2.5 to 3.5 cm. long, 1 to 1.5 cm. in diameterat the throat, tomentulous; sepals oblong, 3 to 4 cm. long, 1 to 1.5 cm. wide, fleshy; petals subequal to the sepals, membranous; corona filaments in 4 series, the outermost liguliform, 1.5 to 2.5 cm. long, verrucose at margin in upper half, bearing near middle of one side a short (about 1.5 mm.) appendage, the succeeding filaments filiform, diminishing from 4 to 1 mm. long; operculum borne about 7 mm. above base of tube,



membranous, erect, 4 to 5 mm. high, lobulated and irregularly lacerate-fimbrillate; ovary narrowly ellipsoidal, rufotomentose.





**Passiflora candida** Poepp & Endl. 1871 Subgenus Astrophea Supersection *Pseudoastrophea* Section *Pseudoastrophea* 













#### Passiflora kawensis Feuillet 1994

## Subgenus Astrophea Supersection *Pseudoastrophea* Section *Pseudoastrophea*

Description: Brazil and Guyanese plateaus Liana climbing to more than 20 m with long thick tendrils, all parts but the flowers covered with short curved hair; if the plant does not have a support to climb, the main stem develops several branches, the habit of the plant being then 1.2-1.8 m high, weeping and creeping on the ground. Leaves simple; stipules minute, less than 1 mm long; petiole (10-)16-22 mm long; lamina unlobed, with two glands at the very base between the midrib and the margin, 10-15 x 4-5.5 cm, margin entire, apex sharply acute to long acuminate with a short mucro, round-asymmetric at base, shining above, tomentose on veins. Blooming on climbing, weeping, or creeping stems. Flowers solitary or paired; bract and bracteoles not verticillate, 0.7-1.3 mm long serrate, pilose; peduncle 1.8 cm long, articulate near base, green, pilose; hypanthium 1.3 cm long, 0.7-1.1 cm diam. at base and top, green outside, yellowish white inside; sepals pale outside, white inside, 3.5-4 cm long, 0.7 cm wide; petals white, 3.5 cm long, 0.5 cm wide; corona in several rows, outer two rows of filaments yellow, the outermost subdolabriform, 1 cm long, verrucose at apex, the inner capitate, 0.5 cm long, then a 4-5 mm zone with rows of little tubercules, and finally the innermost row of short filaments ca. 1 mm long; operculum laciniate, yellowish, forming a dome closing the hypanthium cavity just over the middle; androgynophore 2 cm



long, white at base, becoming green 1.3 cm from base, where bearing an umbrella-like structure, dark red, lobulate, 2 mm long, nearly closing the mouth of the hypanthium; ovary angled, 4. mm long, green, densely rufo-tomentose. Fruit semi-spherical, 3 cm diam, never observed mature.





### **Passiflora grandis** Killip 1938

### Subgenus Astrophea Supersection Pseudoastrophea Section Pseudoastrophea

Distribution: Colombia (1100 m). Shrub, 1.5 meters high, the branchlets terete, the cortex dark brown, minutely tomentulous with black hairs, at length glabrescent; stipules soon deciduous; petioles stout, 2.5 to 3 cm. long, densely and minutely hirsutulous or nearly tomentulous, glandless; leaves broadly ovate or ovate-oblong, 20 to 28 cm. long, 12 to 17 cm. wide, rounded and emarginate at apex,



rounded or subtruncate at base, entire, penninerved (lateral nerves about 14 to a side), subcoriaceous, glabrous above, pale beneath, densely hirsutulous on the strongly elevated nerves and veins beneath, the under surface

bearing near its base and close to the costa 5 or 6 crateriform, yellowish glands about 1 mm. in diameter; peduncles 5 to 7 cm. long, hirsutulous with blackish hairs, twice dichotomous, the common peduncle and the branched portion subequal; bracts subulate, soon deciduous; calyx tube campanulate, about 7 mm. long, 6 mm. wide at throat; sepals oblong, 1.5 to 2 cm. long, about 6 mm. wide, obtuse, white, redspotted; petals subequal and similar to the sepals; corona filaments in 3 series, the outer falcate, narrowed, dilated above middle, 7 to 9 mm. long, laterally compressed, those of the inner 2 filiform, 1 mm. long; operculum membranous, erect, about 1 mm. high, shallowly erose; ovary short-ovoid, densely whitish-tomentose.







### **Passiflora bakhuisensis** J Vanderplank & R Boender 2023

#### Subgenus Astrophea Supersection Pseudoastrophea

Distribution: Surinam Description Vine of medium size, weak tree or shrub, 5–8 m high. Stem striate, puberulent, pale green when young becoming woody. Tendrils few, terete, pale green, glabrous, 14 -18 cm long. Stipules subulate, 1-2 mm long,



soon deciduous. Petiole terete, 1.4–2 cm long, glabrous with two scarlike glands at junction with leaf blade, (glands c. 1.5 2 mm). Leaves ovate in general outline, 8–12 4–7 cm with 5–9 pairs of major lateral veins, glabrous, sub-coriaceous, rounded at base, acuminate at apex. Peduncle 5–11 mm long, bifurcate, the pedicels 5 –8 mm long, terete. Bracts attenuate, 1.5–2 mm long 0.3–0.4 mm in diameter. Flowers white with orange

corona filaments, 5-6 cm in diameter, diurnal. Hypanthium short-campanulate, 10–12 mm diameter, 6–7 mm. high, puberulent, pale green. Sepals ovate, 1.9-2.5 8-1.3 cm, adaxial surface white, abaxial surface pale greenish-white. Petals ovate, 0.8-0.9 0.25-0.35 cm, adaxial and abaxial surfaces white. Corona filaments in 5 or 6 series, outer series fleshy, sub-dolabriform, 1.4-2 cm long, 3-4 mm in diameter at widest point, outer three quarters orange and yellow towards base, second series fleshy 9-10 mm long, orange with yellow base, each of the succeeding 3 or 4 series becoming shorter from c. 6 mm in series 4 to c. 3 mm long in series 5 and 6, yellow with orange tips. Operculum tubular arising from the base of the hypanthium, 7–12 mm high with fimbriate margin exserted above apex of hypanthium. Androgynophore slender c. 2 cm long, pale green. Staminal filaments pale green, 5-6 mm long. Anthers pale yellow. Pollen deep yellow, pollen grains spherical, zonate, geminate, anastomosing at the poles with six pair of colpi at the equator. Ovary pubescent with fine short white hair, c. 5 mm long, pale green. Style green, 3.5–4 mm long. Stigma olive green. Fruit unknown. Seed unknown.



#### **Passiflora franciscoi** C. Aguirre & M. Bonilla 2016 Subgenus Astrophea Supersection *Pseudoastrophea* Section *Pseudoastrophea*

Distribution: Colombia.

Liana to 8m. Stem terete, glabrous, green when young and brown-greyish when lignified. Tendrils present, green or brown. Leaf simple, obovate with entire margin, base cordate, apex deeply emarginate, coriaceous, adaxial surface dark green, abaxial surface pale green,  $9-11\times7.5-7.8$  cm, 14-16 pairs of major lateral veins. Petiole stout with two glands, cleft, in lateral position at apex,  $23-30\times1.5$  mm. Stipules not seen. Peduncles solitary, 2.7 cm long. Bracts absent. Flower erect, white, 2.8 cm long, 3.8 cm diameter. Androgynophore 1.2 cm long. Sepals white at the bundle, the underside with a thin green line along its middle part, three green and two white, oblong,  $1.7\times0.7$  cm. Petals white, subequal in form and dimension to sepals. Corona filaments in 2 series, the outermost dolabriform, laterally compressed, apex wavy, 1.2 cm long, with internal face yellow-orange with red spots and dark red appendix halfway up each filament, the external face orange with base yellow. Filaments of the inner series small and filiform. Ovary glabrous, 6 mm long. Fruit widely ovate, wider at the base than at the apex, green with white spots in form of freckles. Seed fusiform, shield-like, dark brown.

#### Passiflora ovata Martin ex DC. 1828

# Passiflora deficiens Masters 1883 Subgenus Astrophea Supersection Pseudoastrophea Section Pseudoastrophea

Distribution: French Guyana. Tree or shrub (?) with a few weak tendrils, glabrous throughout except the ovary; stipules linear, about 2 mm. long; petioles up to 3 cm. long, purplish, biglandular at the junction with the blade; leaves oblong, 6.5 to 11 cm. long, 3.5 to 5.5 cm. wide, rounded or almost truncate at the apex, rounded or subacute at base, penninerved (about 6 nerves to a side), subcoriaceous, bright green on both surfaces, sublustrous above; peduncles about 2 cm. long, bifurcate, the pedicels 5 to 8 mm. long; bracts linear, about 2 mm. long; calyx tube very short, campanulate-funnel-shaped, 2 to 3 mm. long, 8 to 10 mm. wide at the throat; sepals lanceolate, about 2 cm. long, 1



cm. wide at base, obtuse; petals slightly shorter than the sepals; corona 2-ranked, the outer series subdolabriform, about 1 cm. long, enlarged at the middle, the inner about 2 mm. long; operculum(?); ovary white-tomentose.









#### Passiflora bernaccii Mezzonato 2018

### Subgenus Astrophea Supersection Pseudoastrophea Section Pseudoastrophea

Distribution: Brazil (Acre). Liana; tendrils slender, spines absent. Branches 1–2 mm diam., brown, pale yellow, cylindrical, striate, puberulous. Stipules  $0.3-0.5 \times 0.1$ −0.2 mm linear, puberulous. Petiole 10.9-18.3 mm long, ca. 1.2 mm diam., puberulous; two triangular, abaxial **glands**  $1.4-2.2 \times 0.7-$ 1.6 mm at the junction between leaf blade and petiole, margin yellow or dark brown, center dark brown. Leaf **blade**  $8.1-13.4 \times 4.5-$ 6.4 cm, chartaceous or membranous, ovate to oblong, apex acuminate, base round or cuneate, abaxial surface hirsute, adaxial surface hirsute only on the midvein, otherwise glabrous; margin with ca. 8 glands, 0.2–0.4  $\times$ 0.2 mm; 15–17 secondary veins straight to slightly arcuate. Flowers solitary or paired, peduncle 2.2–3.4 mm length; bracts ca. 0.9  $\times$  0.5 mm, triangular,



alternate; **pedicel** ca.

8.6 mm length. **Flowers**. with cylindric-campanulate hypanthium, ca. 10 mm long, ca. 4.9 mm diam; **sepals** ca.

1.8 × 0.4 cm, linear-oblong, apex obtuse, abaxially velutine, adaxially glabrous, white with a green longitudinal line; **petals** ca. 1.6 × 0.3 cm, linear-oblong, apex round, glabrous, white; **corona** with 2 series of filaments, distant 10.1 mm length of the hypanthium base; **filaments of first series** 4.3–9.0 mm length, apical portion 0.7 –0.9 mm length, widest point 1.0–1.7 mm width, base 0.4–0.4 mm width, inserted laterally, dolabriform, apex attenuate, verrucose on the margin above the widest point; **filaments of the second series** 1.6–1.8 × 0.02–0.05 mm, linear; **operculum** ca. 2.3 mm length, ca. 0.8 mm length. free apical portion, inserted at ca. 5.6 mm length of the hypanthium base, erect, filamentous with fimbriate apex, papillose; **androgynophore** ca. 1.5 cm length, trochlea ca. 1.2 × 1.6–3.0 mm, conical, margin wavy, ca. 8.6 mm length from base; **filaments** 3.0–5.8 × ca. 0.5 mm, glabrous; **anthers** 0.5–0.6 × 0.2 cm; **ovary** 0.3–0.4 × ca. 0.2 cm, oblong, obovate, velutine, basal constriction ca. 0.2 cm long; **style** ca. 0.3 cm long, 0.04–0.06 cm diameter, velutine at base. **Fruit** not seen.

#### Passiflora cirrhipes Killip 1938

# Subgenus Astrophea Supersection Pseudoastrophea Section Pseudoastrophea

Distribution: Peru (1100-1600 m). Woody vine, glabrous throughout except the ovary; stipules subulate, 2 mm. long, coriaceous, soon deciduous; petioles slender, 1 to 1.5 cm. long; leaves ovate or oblongovate, 5 to 9 cm. long, 4 to 5.5 cm. wide, sharply acuminate, rounded at base, membranous,



entire, penninerved, the lateral nerves 6 to 8 to a side, midnerve biglandular at base, the glands scarlike, oblong, about 1 mm. long, sometimes extending onto the petiole; peduncles slender, bifurcate (common portion and the branches subequal, each 1.5 to 2.5 cm. long), terminating in a reduced or a well developed tendril; bracts setaceous, about 0.5 mm. long, soon deciduous; calyx tube cylindric-campanulate, 7 to 9 mm. long, 4 to 5 mm. wide at throat, conspicuously nerved; sepals linear-oblong, about 1.5 cm. long and 4 mm. wide, subobtuse,

yellowish green without, white within; petals spatulate, subequaling the sepals, obtuse, very thin, white; corona filaments in 3 series, erect, the outermost subdolabriform, 9 to 10 mm. long, laterally compressed, short-acuminate above the dilated part, yellow, the filaments of the 2 inner series filiform, unequal, 1 to 3 mm. long; operculum membranous, erect, 2.5 to 3 mm. high, fimbriate about halfway; ovary ovoid, truncate at apex, rufotomentose; styles slender, about 6 mm. long.



#### Passiflora elliptica Gardn 1842

### Subgenus Astrophea Supersection *Pseudoastrophea* Section *Pseudoastrophea*

Distribution: Brazil (Mata Atlantica). Scandent or subscandent shrub; branches minutely puberulent; stipules linearsubulate, about 1.5 mm. long, deciduous; petioles 1.5 to 2 cm. long, biglandular at apex; leaves elliptic, 6 to 8 cm. long, 4 to 5.5 cm. wide, obtuse and often emarginate at apex, rounded at base, penninerved (lateral nerves about 7 to a side), conspicuously reticulateveined, subcoriaceous, glabrous and lustrous above, finely pilosulous beneath, concolorous; peduncles 1 to 1.5 cm. long; bracts linearsubulate, 1 mm. long, borne near base of peduncle; flowers white; calyx tube campanulate, 4 to 7 mm. long, 3 to 4 mm. wide; sepals oblong, 1.5 to 2 cm. long, 3 to 4 mm. wide, obtuse; petals similar and subequal to the sepals; corona filaments in 2 series, the outer liguliform, 7 to 8 mm. long, the inner minute, barely 1 mm. long; operculum borne near middle of tube, membranous, about 3 mm. high, fimbrillate, the fringe 0.5 to 1 mm. long; gynophore hirsutulous at middle, otherwise glabrous; ovary ovoid, canosericeotomentose; fruit globose, about 2 cm. in diameter, the exocarp brittle, orange-color; seeds broadly ovoid, about 7 mm. long, 6 mm. wide, coarsely

reticulate.



#### Passiflora haematostigma Mart. 1872

### Subgenus Astrophea Supersection Pseudoastrophea Section Pseudoastrophea

Distribution Brazil Rio de Janeiro and Sao Paulo Plant scandent; bark brown, puberulent, the younger branches densely and softly villosulous, the tendrils slender or well developed; stipules setaceous, deciduous; petioles up to 2.5 cm. long, inconspicuously biglandular near apex; leaves elliptic, oblonglanceolate, or oblong, 5 to 10 cm. long, 2.5 to 5 cm. wide (lower leaves cordateovate, up to 13 cm. long, 11 cm. wide), acute or rounded, often subemarginate at apex, rounded at base, penninerved (lateral nerves 4 to 6 on a side, arcuate toward margin), slightly revolute, coriaceous, glabrous and shining above,



densely and softly brown-villosulous beneath; peduncles 2 to 4 cm. long, articulate near middle, densely puberulous; bracts setaceous, scattered; calyx tube short-cylindriccampanulate, about 1 cm. long, 6 mm. wide at throat, softly puberulous without; sepals linear-oblong, 2.5 to 3 cm. long, 5 to 7 mm. wide, obtuse, green and softly puberulous without, white at margin, white within; petals linear-spatulate, 1.5 to 2 cm. long, 3 to 4 mm. wide, obtuse, white; corona filaments in 2 series, the outer about 1.5 cm. long, subdolabriform, dilated just above middle, attenuate and slightly verrucose to apex, those of the inner series linear-clavate, about 2 mm. long, strongly compressed; operculum borne at middle of tube, 1.5 to 2 mm. long, white, filamentose about to middle; ovary oblong, densely and softly puberulous.







#### Passiflora haematostigma Mart. 1872 Subgenus Astrophea Supersection Pseudoastrophea Section Pseudoastrophea











#### Passiflora mansoi (Mart.) Mast. 1871

# Passiflora mansii Subgenus Astrophea Supersection Pseudoastrophea Section Pseudoastrophea

Distribution: Brazil (Mata Atlantica). Lianas; woody with thin to robust tendrils, or arborescent lianas without tendrils, spines absent. Branches cylindri-cal, striated, puberulous to hirsute. Stipules 0.05-0.1 × 0.02-0.03 cm, linear, puberulous. Petioles 0.6-1.4 cm long, velutinous, puberulouse, hirsute or glabrous; 2 glands on abaxial surface, laterally at the junction of the leaf blade with the petiole, oblong, triangular, obovate or ovateelliptical. Leaf blades 3.5-18.5 × 2.8-12.5 cm, ovate, broadly ovate, ovate-lanceolate, elliptical or obovate, membranaceous to coriaceous, apex acute, retuse, mucronate or emarginated, base rounded and slightly chordate, obtuse or acute, abaxial surface velu-tinous or hirsute, adaxial surface pilose, silightly hirsute. Peduncles 0.2-1.0 cm long. Bracts 0.06-0.1 × 0.09 cm, triangular to deltate, alternate. Pedicels 0.5-1.6 cm long. Flowers solitary or in pairs, hypanthium cylindrical-campanulate or campanulate-funiliform, 0.6-1.3 cm long; 0.7-0.8 cm in diam.; sepals  $1.5-2.5 \times 0.3-0.6$  cm, linear-oblong; petals  $1.6-1.9 \times 0.3-0.5$  cm, linear-oblong; corona comprises 2 series of filaments, external series 0.9-1.2 cm long, dolabriform, internal series 0.2-0.3 cm long, subulate or linear-capitelate; operculum 0.2-0.3 cm long, erect, filamentous, apex with fimbriate



-subulate filaments, papilose; androgynophore 2.1–2.4 cm long, throclea absent; ovary 0.3– $0.4 \times 0.15$ –0.2 cm, obovate to oblong, velutinous to densely velutinous or hirsute. Fruits 2.5– $4.4 \times 2.0$ –3.6 cm, rounded to ellipsoid, vilous.





#### Passiflora mansoi (Mart.) Mast. 1871

Passiflora mansii
Subgenus Astrophea Supersection Pseudoastrophea Section
Pseudoastrophea













#### Passiflora pentagona Mast. 1872

Passiflora alliacea Barb. Rodr. 1901
Subgenus Astrophea Supersection Pseudoastrophea Section
Pseudoastrophea



Distribution: Brazil (Mata Atlantica).

Plant scandent or subscandent, the tendrils usually well developed; stem terete, sulcate below, glabrous or minutely puberulous above; stipules setaceous, soon deciduous; petioles 0.5 to 2 cm. long, often reflexed, obscurely biglandular at apex; leaves oblong, 5 to 10 cm. long, 3 to 5 cm. wide, rounded or acutish at apex, rounded at base, reticulate-veined, subcoriaceous, glabrous and lustrous above, glabrous or minutely puberulent beneath; peduncles 1 to 1.5 cm. long, reflexed, articulate below middle; calyx tube cylindric-campanulate, 5 to

8 mm. long, about 5 mm. wide at throat, conspicuously 5-angled, puberulent; sepals oblong, 1 to 1.5 cm. long, 4 to 6 mm. wide, obtuse; petals similar to the sepals; corona filaments in 2 series, the outer subdolabriform, about 1 cm. long, ligulate below, dilated above middle, verrucose along inner margin at point of dilation, the inner narrowly linear, clavate; operculum borne at middle of tube, erect, about 2 mm. high, filamentose in upper half; ovary oblong, tomentulous; fruit globose, about 4 cm. in diameter, the exocarp coriaceous, brittle, yellowish; seeds ovate-oblong, about 5 mm. long, reticulate.



#### Passiflora rhamnifolia Mast. 1872

Subgenus Astrophea Supersection *Pseudoastrophea* Section *Pseudoastrophea* 



Distribution: Brazil (Mata Atlantica). Scandent shrub, with usually well developed, slender or stout tendrils; stem subterete, glabrous or very minutely puberulent; stipules setaceous, soon deciduous; petioles 1 to 2.5 cm. long, obscurely biglandular at apex; leaves ovate-oblong to ovate-elliptic, 5 to 10 cm. long, 4 to 6 cm. wide, subacute at apex, rounded at base, submembranous, glabrous above, minutely puberulent or glabrous beneath; peduncles 1 to 1.5 cm. long, solitary, articulate near base, ascending; bracts setaceous, deciduous; calyx tube cylindric-campanulate, about 1 cm. long, 6 mm. wide at throat; sepals oblonglanceolate, about 1.5 cm. long, 5 mm. wide, obtuse; petals similar to the sepals; corona filaments in 2 series, the outer subdolabriform, 1 cm. long, broadly linear below, dilated near apex, the inner 3 mm. long, filiform below, broadly dilated and shallowly bifid at the apex; operculum borne just below middle of tube, erect, about 2 mm. high, filamentose in upper third; ovary ovoid, strongly sulcate, tomentulous.



#### **Passiflora phaeocaula** Killip 1927

#### Subgenus Astrophea Supersection Pseudoastrophea Section Pseudoastrophea



Distribution: Brazil(Amazonia). Plant scandent, the tendrils well developed; stem subquadrangular, slender, dark purple; stipules setaceous, soon deciduous; petioles 5 to 8 mm. long, glandless or obscurely glandular at base of leaf, minutely puberulent; leaves oval, 3.5 to 5 cm. long, 2 to 2.5 cm. wide, rounded and slightly emarginate at apex, rounded at base, entire, penninerved (lateral nerves 5 to 7 to a side), reticulate-veined (nerves and veins elevated and conspicuous on both surfaces), thickcoriaceous, lustrous and glabrous above, dull and minutely puberulent beneath; peduncles solitary, 1-flowered, 4 to 6 mm. long, shorter than the adjacent petiole; bracts soon deciduous; calyx tube funnelshaped, about 8 mm. long, 5 mm. wide at throat, darkmaculate within; sepals narrowly oblong, about 2 cm. long, 6 mm. wide, obtuse, ecorniculate; petals similar and subequal to the sepals; corona filaments in 2 series, the outer about 1 cm. long, subdolabriform, linear below, dilated to a width of about 1.5 mm. Above middle, attenuate at tip, the inner filiform, about 1.5 mm. long, shallowly bifid; operculum borne in lower third of tube, erect, 4 mm. long, filamentose nearly to base; ovary ovoid, puberulent.



#### Passiflora sclerophylla Harms. 1917

### Subgenus Astrophea Supersection Pseudoastrophea Section Pseudoastrophea



#### Distribution: Guyana, Venezuela.

Scandent shrub, 1 to 2 meters high, the branches glabrous or the younger puberulent; petioles 5 to 10 mm. long, biglandular at apex; leaves suborbicular, oval, obovate, or oblong, 4 to 7 cm. long, 3 to 7 cm. wide, rounded, emarginate, or subacute at apex, rounded at base, reticulate-veined (veins elevated beneath), thick-coriaceous, glabrous and shining above, short-villosulous beneath; peduncles solitary in the axils or in 2's or in 3's, 1 to 1.5 cm. long, appressed-pubescent; calyx tube broadly funnel-shaped, nearly 1 cm. long, 1 cm. in diameter at the throat; sepals narrowly oblong, 2.3 to 2.5 cm. long, obtuse; petals lanceolate, 1.8 to 2 cm. long; corona filaments in 2 series, the outer about 2 cm. long, laterally compressed, geniculate at middle, the upper half narrowly linear-attenuate, verrucose along margin, the inner filaments filiform, about 3 mm. long; operculum cleft nearly to the base into linear-clavate segments about 3 mm. long; ovary narrowly oblong, densely ferruginous-tomentose.

#### Passiflora trochlearis P. Jorgensen 1997

#### Subgenus Astrophea Supersection Pseudoastrophea Section Pseudoastrophea

Distribution: Ecuador (600-800 m). Liana, stem to 1.5 cm diam., puberulent, indument light brown, to 0.1 mm. Stipules 1.5 mm, deltoid, very early deciduous; petioles 2.0 4.0 cm, the glands 2 X 0.7 mm, elliptic, scarlike, reddish brown, confined to the midrib at junction



between leaf blade and petiole; leaf blades 6.5—14.7 X 4.0-9.5 cm, unlobed, ovate, entire, the base truncate or rounded, the apex acute, chartaceous, 6-10 light brown lateral nerves per side, above green and pubescent along nerves, below olivaceous green, white-puberulent.

Inflorescences axillary, simple or compound dichasiums, the central cyme or flower developed into a long-lasting tendril, old tendrils with barely visible scars from the lateral cymes, apparently a maximum of two flowers flowering per node at one time, lateral cymes placed at base of tendril or up to 1.0 cm from base; bracts 0.8-1.5 X 0.3 mm, triangular, light brown puberulent. Flowers 4.0—5.0 cm diam.; hypanthium 1.0-1.3 cm long, 1.0-1.3 cm wide at mouth, campanulate, whitish green, white puberulent outside; sepals 2.0-2.5 X 0.5-0.6 cm, narrowly oblong, obtuse, whitish green, 5-nerved, glabrous; petals 1.3-1.8 X 0.4—0.5 cm, narrowly oblong, obtuse, white; outer corona elements 0.9-1.1 cm, straight, trigonous, subdolabriform, yellowish with purple spots, margin irregular; inner corona elements 1.5 mm, filiform, yellow; operculum placed 6 mm from base of hypanthium, erect for 2 mm then horizontal, margin dentate; androgynophore 1.7-2.0 cm, green with a purple conical trochlea 0.8-1.2 cm from base, between operculum and inner corona series; ovary ellipsoid, ten-ribbed, white puberulent; styles 0.9- 1.0 cm, puberulent. Fruit unknown.



#### **Passiflora lorenziana** Mezzonato & Bernacci 2016 Subgenus Astrophea Supersection Pseudoastrophea Section Pseudoastrophea

Distribution: Brazil(Amazonas).

Branches 3.92 mm wide, cylindrical, striated, yellowishbrown, slightly puberulous. Stipules not seen. Petiole  $17.49-19.04 \times 1.11-1.30$  mm, slightly puberulous; two **glands**  $1.26-1.66 \times 0.78-0.95$  mm, elliptical-obovate, margin yellow, center dark, abaxial, in an auriculiform enlargement, 2.38-2.96 × 1.38-2.45 mm, at blade base. Leaf blade 9.51–11.80 × 7.40–9.50 cm, broadly elliptical to broadly ovate, cartaceous-membranous, apex attenuated, base rounded to slightly cordate, glabrous; with many glands, 0.66–0.73 × 0.32–0.41 mm, throughout margin; 8–12 **veins**, arched. **Peduncle** 6.50–7.67 mm. **Bracts** 1.30–1.38 × 0.80–1.11 mm, setaceous. Pedicel 5.93-6.54 mm. Flowers solitary, cylindrical-campanulate, hypanthium 5.02-7.57 mm wide, trichomes yellow; sepals 2.46 × 0.66 cm, abaxial green, adaxial white, glabrous, apex rounded, linear-oblong; petals sub-equal, white, glabrous, apex rounded, linear-oblong. Corona with four well-defined series of filaments, more numerous undefined series, insertion of corona up to 10.72 mm from base of hypanthium; filaments of first series 19.50 × 2.55 mm, linear, margin entire to half or two-thirds, thereafter densely verrucose and eventually bifurcated, yellow with vinaceous-brown blotches for entire length; filaments of the second series 1.70 × 0.62–0.68 mm, ligulate, apex slightly verrucose, yellow; filaments of the third series  $1.50 \times 0.19$  mm, linear, yellow; filaments of the fourth series  $0.08 \times 0.33$  mm, linear-tuberculate, yellow; filaments more interior linear or tuberculate, with margin slightly verrucose. Operculum 2.61–3.50 mm long, 3.98 mm from hypanthium base, filamentous up to or very close to point of insertion, apex clavate with irregularly cutting margin, nectariferous ring 0.89 mm from hypanthium base. Androgynophore 22.69 mm long, whitish, trochlea 0.38 × 2.50 mm, discoid undulate, vinaceous-brown to 10.83 mm from base, beyond which are whitish trichomes (Fig. 2b). **Filaments**  $6.01 \times 0.88$  mm, glabrous, brownish. **Anthers**  $6.52 \times 2.92$ mm. Ovary 4.85 × 3.10 mm, obovate, densely velutinous, trichomes yellow. Style 4.98 × 0.84 mm velutinous, base greenish, apex mottled brown. Fruit not seen.

#### Passiflora jorgeana Mezzonato 2021

### Subgenus Passiflora Supersection Pseudoastrophea Section Pseudoastrophea

Distribution: Brazil (Bahia).

Liana; tendrils slender to woody; spines absent. Branches 1.4-4.3 mm diam., cylindrical, striate, greenish brown, slightly puberulous. Stipules ca. 0.2 mm, linear. Petiole 12–17.2 mm, puberulous; glands 2, on abaxial surface at junction of leaf blade with petiole, 0.9–1.3 × 0.3-0.6 mm, triangular, yellow. Leaf blades 10.4-13.9 × 5.9–9.2 cm, ovate or elliptic, membranaceous to chartaceous; apex acute, mucronate or retuse; base rounded or obtuse; abaxial surface slightly puberulous, crypts absent, adaxial surface glabrous; marginal glands  $0.09 \times 0.01$  mm; secondary veins 10 to 13, arched. Flowers solitary, peduncle 24.9–34.7 mm; bracts  $0.6-1.3 \times 0.1-0.2$  mm, alternate, linear-setaceous; pedicel 5.9-9.3 mm. Hypanthium cylindric-campanulate,  $7.6-8.2 \times 5.9-6$  mm, ca. 4.5-4.8 mm diam. Sepals white, narrowly oblong,  $16.2-17.4 \times 4.1-6.6$  mm, apex obtuse, abaxial surface slightly puberulous, adaxial surface glabrous. Petals white, narrowly oblong, ca. 17 ×4 mm, apex obtuse, both surfaces glabrous. Corona in 2 series of filaments, 7.4–8.4 mm from base of hypanthium; filaments of first series yellow to yellow-orange with vinaceous dots, dolabriform, 11.3-12.9 mm, apical portion 1.6-2.4 mm long, widest portion 1.3-1.7 mm wide, base 0.5-0.9 mm wide, apex attenuate to attenuate-curved, margin entire or slightly crenulate; filaments of second series yellow in top half, with vi-



naceous dots, linear, apex entire, clavate or bifid, with alternate sizes, larger filaments 2.5-2.6 mm, smaller filaments 1.3-1.7 mm, ca. 0.2 mm wide. Operculum 3.8-4.3 mm from hypanthium base, fimbriate, 1.2-2.2 mm; apex free, truncate to acute, 0.6-0.7 mm, papillose. Androgynophore 18-19.5 mm, greenish above trochlea and yellowish below; trochlea vinaceous, 9.9-10.4 mm from base,  $1-1.2\times1.5-2$  mm, wavy fusiform. Chamber present at base of hypanthium, 1.6-2.2 mm. Staminal filaments  $4.6-5.6\times0.9-1$  mm, glabrous; anthers ca.  $5.5\times1.6-1.8$  mm. Ovary  $3.3-3.9\times1.7-1.9$  mm, oblong, basal region more tapered, 0.3-0.6 mm width, densely velutinous, trichomes yellow; style  $6.6-6.8\times0.4-0.5$  mm. Immature fruits green, obovoid,  $2.2-3.4\times2.1-2.6$  cm, puberulous. Seeds ca.  $6.4\times3.9$  mm, ca. 2.1 mm thick.





#### Passiflora cardonae Killip 1939

### Subgenus Passiflora Supersection Pseudoastrophea Section Pseudoastrophea

Distribution: Venezuela Plant suffrutescent, glabrous throughout except the ovary, apparently subscandent, the tendrils few; branches slender, subterete, dark brown; stipules soon deciduous; petioles 8-10 mm. long, slender, biglandular just below the middle, the glands sessile, saucershaped, about 0.8 mm. long; leaf-blades oblong, oblonglanceolate, or slightly obovate, 6-9 cm. long, 3 -4 cm. wide, obtusely short-acuminate or rounded at apex, rounded at base, entire, penninerved (lateral nerves about 7 to a side), coriaceous, lustrous, the reticulations prominent beneath; peduncles solitary or in pairs, 1-1.3 cm. long, slender, articulate about 2 mm. above base; bracts triangular, about 0.5 mm. long acute, borne close to base of peduncle and closely appressed to it; calixtube narrowly cylindric, 8-9 mm. Long, 2 mm. in



diameter, enlarged to about 3 mm. at base; sepals linear, 2.5 cm. long, 2.5-3 mm. wide, obtuse, ecorniculate, greenwish red (?) without, pale and reddish streaked within; petals linear, 1.5 cm. long, 2 mm. wide, obtuse, white, reddish streaked; corona-filaments in 3 series, those of the outermost series subligulate, 1-1.2 cm. long, enlarged to a width of about 1 cm. toward apex, erect, then tapering to a verruculose tip, those of the second series filiform, about 3 mm. long, the innermost filaments capillary, barely 1 mm. long, 1.5 mm. in diameter, exserted beyong the calyx tube, reddish, minutely denticulate; ovary ovoid, trigonous, truncate, densely canotomentulous, the styles arising at tops of angles of ovary.

#### Passiflora tessmannii Harms 1926

### Subgenus Astrophea Supersection Pseudoastrophea Section Pseudoastrophea

Distribution: Peru.

Scandent shrub; branches glabrous, the younger portions sometimes velutinous or puberulent; stipules early deciduous; petioles 0.5 to 1.5 cm. long, biglandular at apex; leaves ovate, broadly oblong, or obovate, 5 to 9 cm. long, 2.5 to 6.5 cm. wide, acute or obtuse at apex, rounded at base, penninerved (lateral nerves about 6 to a side), membranous, glabrous above, very minutely puberulous beneath, concolorous; peduncles solitary or in pairs, 0.7 to 1.5 cm. long; calyx tube cylindric-campanulate, 0.8 to 1 cm. long, 5 to 7 mm. wide at throat; sepals narrowly oblong, 1.5 to 2 cm. long, 5 to 6 mm. wide, obtuse, green without, white within; petals similar to the sepals, 1 to 1.5 cm. long, 3 to 4 mm. wide; corona filaments in 2 series, the outer falcate-dilated above middle, attenuate at tips, about 7 mm. long, yellow, the inner subulate, about 1 mm. long; operculum borne at middle of tube, 2 mm. high, erect, fimbrillate in upper quarter; ovary ovoid, velutinous.







#### Passiflora venosa Rusby 1896

## Subgenus Astrophea Supersection Pseudoastrophea Section Pseudoastrophea



Distribution: Bolivia.

Erect or subscandent shrub (?); branches terete, minutely puberulent; stipules setaceous, 1.5 mm. long, soon deciduous; petioles up to 1.5 cm. long, biglandular at apex; leaves ovate or ovate-lanceolate, 6 to 12 cm. long, 4

to 7 cm. wide, sharp-acuminate at apex, rounded at base, penninerved (lateral nerves 5 or 6 to a side), conspicuously reticulate-veined, coriaceous, bright green and shining above, glaucous beneath, glabrous, puberulous on midnerve beneath; peduncles solitary or in pairs, up to 1.5 cm. long; calyx tube cylindriccampanulate, 5 to 10 mm. long, about 6 mm. wide at throat; sepals oblonglanceolate, 1.5 to 2 cm. long, 7 to 8 mm. wide, obtuse; petals linearoblanceolate, equaling or slightly longer than the sepals, obtuse, violet or light purple(?); corona filaments in 2 series, the outer about 1.3 cm. long, subfalcate, laterally compressed, dilated above middle, the tips linear-attenuate, sinuate along inner margin, the inner filiform or narrowly linear, 2.5 mm. long; operculum about 2 mm. long, membranous below, fimbriate in upper third; ovary ovoid, pubemlent, about 10ribbed.



#### **Passiflora purii** Ana Carolina Mezzonato-Pires , Leonardo Moreira Campos Lima and Ana Paula Gelli de Faria2022

### Subgenus Astrophea Supersection Pseudoastrophea Section Pseudoastrophea

Distribution: Brazil (Minas Gerais).

Scandent lianas or subshrubs; tendrils slender to robust, tomentose; spines present. Branches 0.2-0.5 cm in diameter, younger branches greenish brown, older branches brown, cylindrical, striate, slightly velutinous, trichomes yellow. Stipules 0.2-0.5 mm or deciduous. Petiole 1.0-2.5 cm long, slightly velutinous; 2 glands 1.0-2 × 0.5–0.7 mm, laterally of the petiole apex, ca. 1.0–2.1 mm from the leaf base, elliptic, margins and center nigrescent or yellowish. Leaf blades 5.0-8.0 × 1.8-4.5 cm, chartaceous, elliptic or obovate, apex acute or acuminate, base acute orattenuate, adaxial surface slightly velutinous in the midrib, abaxial surface velutinous; margins undulate; marginal glands present, < 0.2 mm; veins 10-13, straight to arched. Inflorescences uniflorous or biflorous; peduncle 5.4–8.8 mm long; bracts 1–1.2 x 0.4–0.6 mm, triangular with lobes at the base or linear; pedicel 6.7–11.3 mm long; flowers 2.6–3 cm long, 4.3–4.6 cm diameter; hypanthium 4.8–7 mm long, green, cylindric-campanulate; sepals 1.6–2.2 × 0.3–0.6 cm, linear-oblong, apex obtuse, adaxial surface glabrous, white, abaxial surface velutinous, green; petals 1.8–1.9 × 0.3–0.5 cm, linear-oblong, apex obtuse, glabrous, white; corona in 2 series of filaments, 5–9 mm from the base of the hypanthium, vinaceous, non-plumose; filaments of the first series 13-16 mm long, apical portion 3-4.5 mm long, widest portion 0.7-2 mm, base 0.4-0.6 mm wide, laterally compressed and inserted, dolabriform, apex verrucose gradually attenuate, totally vinaceous; filaments of the second series  $1.5-4.8 \times 0.1-0.3$  mm, bifid, apex vinaceous, base yellowish; operculum 1.1-2.2mm long, apical portion 0.4–0.6 mm long, free, inserted at 2.5–4.5 mm from the base of the hypanthium, erect, apex fimbriate, papillose; androgynophore 0.8–1.7 cm long, trochlea 1.5–2.4 x 2.9–3.2 mm, 7.4–8.7 mm from the base, conical, vinaceous, filaments 3.5–5.4 mm long, glabrous; anthers 4–4.6 × 1.3–1.5 mm; pollen 6colporate, with 3 pontopercula, exine semitectate, sexine reticulate, homobrochate; ovary  $0.2-0.3 \times 0.15-0.2$ cm, oblong too vate, velutinous; style 3.5–5.5 mm long, 0.5–0.8 cm in diameter, bottom half portion velutinous. Fruits 3-3.5 x 2 cm, obovoid, velutinous, seeds 4.4-5.4 x 2.7-3.6 mm, ca. 1.1 mm thick, reticulate.

### **Passiflora chimuensis** A. Estrada, G. Rivera & J. Solano 2016

#### Subgenus Astrophea Supersection Pseudoastrophea Section Pseudoastrophea

Distribution: Costa Rica. Liana lenosa, hasta 30 cm diam.; tallos estriados, rojizos; estipulas ca. 1 mm, setaceas, diminutas, muy pronto deciduas. Hojas con peciolos 2-4.5(-5.3) cm, 2 glandulas, justo en la union entre la lamina y el peciolo; en forma de cicatriz; lamina 8.2- $18.6(-21.7) \times 3.8-10(-10.00)$ 12) cm, entera, ovado a ovado-eliptica, glabra en el haz, puberulenta sobre nervios principales en el enves, base redondeada a aguda, apice acuminado o agudo, venacion



pinnada, con 6 a 10 nervios por lado, arqueado-ascendentes, membranaceas, margen entero. Inflorescencias axilares, cimosas, pedunculos 1–2 por nudo, muy reducidos, 1–2.5 mm, colaterales a la base del zarcillo, 1–2 flores por pedunculo, pero usualmente solo una flor abierta a la vez por nudo; pedicelo 3-10(-12) mm; bracteas 0.7–1.1 mm, deltoides, dispersas hacia la base de los pedicelos, persistentes. Flores 4.7–5.8 cm de diametro, estipite 7.5-14.5 mm, separado del pedicelo por una articulación, ocasionalmente una bractea ca. 3.5 mm, en la base del estipite y asociada a la articulación, muy pronto decidua; tubo del caliz 5.5-7.0 mm, campanulado a urceolado, verde-claro; sepalos 2.6-3.1 × 0.7-0.8 cm, verde-claro externamente, blancos en el interior; petalos 2-2.8 × 0.5-0.6 cm, blancos; filamentos de la corona en dos series, los externos 11-12 mm, rectos, lateralmente compresos, dilatados hacia el apice, subdolabriformes, amarillos con manchas purpura, margen irregular, los internos 2-4.5 mm, filiformes y dilatados hacia el apice, subdolabriformes, amarillos (blanquesinos hacia la base); operculo ubicado entre 5.5-7.5 mm de la base del tubo floral, erecto y luego horizontal, sulcado adaxialmente, margen crenulado; limen ausente; androginoforo 1.7-1.9 cm, verde (blanco-verdoso hacia la base), con una trochlea conica, blanco-amarillenta, con pequenas y dispersas lineas purpura, entre 0.95-1.1 cm de la base del androginoforo, a la altura de la serie interna de la corona; ovario 3-4.5 mm, elipsoide, verde, densamente puberulento, sulcado; estilos 9-10 mm. Frutos 3.7-5.6 × 2.5-3.8 cm, elipsoides a ovoides, verdeamarillentos, con marcas rojizo-purpuras, exocarpo duro y quebradizo; semillas 0.9–1 × 0.7–0.8 mm; reticuladas.





#### Passiflora skiantha Huber 1906

## Subgenus Astrophea Supersection Pseudoastrophea Section Pseudoastrophea

Distribution: Peru. Scandent shrub, glabrous throughout; petioles about 1 cm. long, biglandular at apex; leaves elliptic, up to 17 cm. long and 9.5 cm. wide, abruptly acute or acuminate at apex, rounded at base, penninerved (principal lateral nerves 4 or 5 to a side), membranous; flowers in short, dense



fascicles, the rachis 1 to 2 cm. long, the pedicels about 5 mm. long; calyx tube cylindric, 3 to 3.5 cm. long, 6 to 8 mm. in diameter, slightly ventricose at base; sepals oblong, 2.5 to 3 cm. long, about 8 mm. wide, obtuse, at length reflexed; petals similar to but slightly narrower than the sepals; corona filaments in 4 serithe outermost spatulate, about 1.5 cm. long, those of the second series 4 mm. long, slightly dilated at apex, those of the 2 inner series filiform, 2 mm. long; operculum borne at middle of tube, deeply cleft into 5 linear filaments about 1.5 cm. long; ovary ellipsoidal, glabrous; fruit ovoid, about 6.5 cm. long; seeds ovate, about 8 mm. long, 5 mm. wide, "transversely rugose."

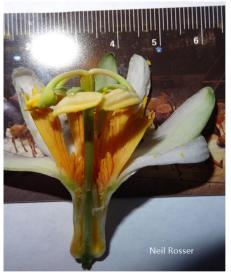




### **Passiflora skiantha** Huber 1906

Subgenus Astrophea Supersection Pseudoastrophea Section Pseudoastrophea













#### Passiflora rusbyi Mast. 1890

# Subgenus Astrophea Supersection Pseudoastrophea Section Botryastrophea Série Botryastrophea

Distribution: Bolivia, Brazil (Amazonia). Scandent shrub, the tendrils present or reduced to short spines; plant glabrous throughout, except the flowers; petioles up to 2.5 cm. long, glandless; leaves oblonglanceolate, 10 to 18 cm. long, 4 to 7 cm. wide, acuminate, rounded at base, penninerved (principal lateral nerves 7 to 9 to a side), membranous; inflorescence pseudoracemose, the rachis up to 25 cm. long, floriferous in upper third, bearing reduced, linear-oblong or linearspatulate leaves about 1 cm. long, and 2.5 mm. wide; calyx tube





narrowly cylindric, 2 to 3 cm. long, puberulent, at length glabrate without, red or red-orange; sepals oblong, 1 to 1.3 cm. long, obtuse, coriaceous, red or red-orange; petals slightly shorter than the sepals; corona filaments in 2 series, the outer narrowly linear, 4 to 5 mm. long, capitellate, yellow, the inner filiform, about 2 mm. long; operculum borne just below middle of tube, membranous, erect, filamentose in upper third; ovary oblong, puberulent.



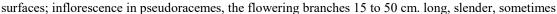


#### Passiflora securiclata Mast. 1893

#### Subgenus Astrophea Supersection Pseudoastrophea Section Botryastrophea Série Botryastrophea

Distribution: Guyana, Venezuela, Brazil (Amazonas).

Subscandent, glabrous shrub, the tendrils usually reduced to recurved spines 1 to 1.5 cm. long; stipules setaceous, soon deciduous; petioles 1 to 1.5 cm. long, those of reduced leaves on floriferous branches 2 to 4 mm. long; leaves of main branches narrowly oblong, ovate-oblong, or oblong-lanceolate, 6 to 12 cm. long, 2 to 5.5 cm, wide (those of floriferous branches oval, 2.5 to 3.5 cm. long, 1.5 to 3 cm. wide), obtuse, usually emarginate, rarely bluntly short-acuminate, rounded at base, penninerved (principal lateral nerves 8 or 9 to a side), plainly reticulateveined, coriaceous or subcoriaceous, concolorous, lustrous on both



bearing a few reduced blades or more, usually the leaves reduced to spinelike petioles, the pedicels 5 to 10 mm. long, very slender; flowers red; calyx tube cylindric, 2 to 4 cm. long, 3 to 5 mm. wide at throat, ventricose at base; sepals narrowly oblong, 1.5 to 2 cm. long, 3 to 4 mm. wide, obtuse; petals similar to the sepals, slightly shorter and narrower; corona filaments in 2 series, the outer dolabriform, 3 to 4 mm, long, verrucose along one side, the inner filiform, about 0.8 mm. long, capitellate; operculum borne near base of tube, membranous, erect, about 1 cm. long, fimbrillate in upper half; ovary ellipsoidal, minutely puberulent.









#### Passiflora spicata Mast. in Mart. 1872

### Subgenus Astrophea Supersection Pseudoastrophea Section Botryastrophea Série Botryastrophea

Distribution: Brazil (Amazonas). Erect shrub, the tendrils reduced to spines; plant essentially glabrous throughout except the flowers; stipules soon deciduous; petioles 0.5 to 1 cm. long, biglandular at apex, the glands slightly elevated; leaves oblong, 10 to 15 cm. long, 5 to 8 cm. wide, abruptly acuminate (tip about 1 cm. long), rounded at base, penninerved (principal lateral nerves 5 or 6 to a side), coriaceous or subcoriaceous; inflorescence



pseudoracemose, the rachis up to 6 cm. long, 4-6- flowered, subangular, the pedicels up to 5 mm. long; flowers scarlet; calyx tube cylindric, 3 to 3.5 cm. long, 0.8 to 1 cm. wide at throat, ventricose at base, densely rufotomentulous; sepals oblong, 2 to 2.5 cm. long, 8 to 10 mm. wide, obtuse, subcoriaceous; petals slightly shorter and narrower than the sepals; corona filaments in 3 series, the outermost falcate, strongly dilated at middle, 8 to 10 mm. long, smooth at margin, those of the 2 inner series liguliform, 4 to 5 mm. long; operculum borne near base of tube, about 10 mm. high, filamentose nearly to base; ovary oblong, villosulous.







# Passiflora spinosa (Poepp. & Endl.) Mast. 1872Subgenus Astrophea Supersection Pseudoastrophea SectionBotryastrophea Série Botryastrophea

Distribution: Peru, Colombia, Brazil (Amazon basin).

Woody vine, the tendrils often reduced to straight or recurved, stout spines up to 1 cm. long; plant glabrous throughout, except the ovary; stipules soon deciduous; petioles 1.5 to 2.5 cm. long, thick, biglandular at apex; leaves oblong, 10 to 17 cm. long, 3 to 9 cm. wide, acuminate, rounded at base, penninerved (principal lateral nerves 7 or 8 to a side), coriaceous, lustrous; inflorescence racemose or pseudoracemose, the racemes up to 25 cm. long, slender, sometimes foliferous, the pedicels solitary or in pairs, 3 to



5 mm. long; calyx tube cylindric, 4 to 5 cm. long, 6 to 8 mm. wide, slightly ventricose at base, bright red without, paler within; sepals narrowly oblong, about 1 cm. long, 3 mm. wide, obtuse, bright red; petals similar and subequal to the sepals; corona filaments in 2 series, yellow, the outer dolabriform, 3.5 to 4 mm. long, dilated at middle, filiform at apex, slightly verrucose along one margin, the inner filaments filiform, about 1 mm. long; operculum borne about 1 cm. above base of tube, erect, membranous, pinkish yellow, filamentose in







### **Passiflora pyrrhantha** Harms 1926

Subgenus Astrophea Supersection Pseudoastrophea Section Botryastrophea Série Botryastrophea



#### Distribution: Peru.

Scandent shrub with a few tendrils, the younger branches puberulous; stipules soon deciduous; petioles 1 to 3 cm. long, biglandular at apex; leaves ovate or ovate-oblong, 10 to 16 cm. long, 6 to 10 cm. wide, acuminulate at apex, rounded at base, penninerved (principal lateral nerves 5 or 6 to a side), remotely denticulate in upper half, subcoriaceous, glabrous; inflorescence racemose, the racemes 7 cm. long or more, short-velutinous, the pedicels 2 to 3 mm. long, thick; calyx tube cylindric, 4.5 to 5 cm. long, nearly 2 cm. in diameter at throat, ventricose at base, appressed-puberulous, fire-red; sepals narrowly oblong, about 3 cm. long, 1 cm. wide, obtuse, orange at middle without; petals subequal to the sepals, fire-red; corona filaments in 2 series, the outer about 6 mm. long, slightly falcate-dilated, citron-yellow, the inner subulate, very short; operculum borne at middle of tube, erect, filamentose nearly to base, the filaments about 1.3 cm. long; ovary ovoid, velutinous.

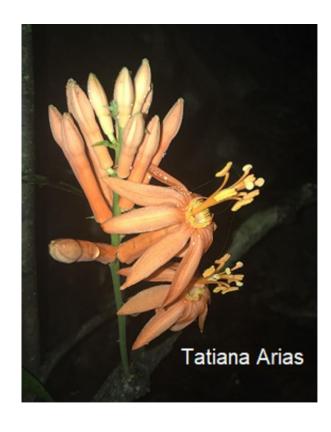


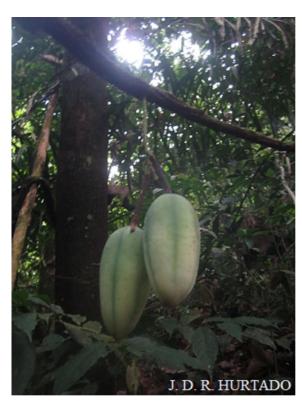


#### Passiflora pyrrhantha Harms 1926 Subgenus Astrophea Supersection Pseudoastrophea Section Botryastrophea Série Botryastrophea

Sebastián Vizcarra







#### Passiflora balbis C. Feuillet 2002

#### Subgenus Astrophea Supersection Pseudoastrophea Section Botryastrophea Série Carnae

Distribution: Guyana, Venezuela and Brazil (Roraima).

Lianas; tendrils thin, spines absent. Branches robust, cylindrical, striated, glabrous. Stipules not seen. Petioles 1.8-6.0 cm long, glabrous, slightly flattened; 2 prominent, elliptical glands on adaxial surface at the apex of the petiole. Leaf blades  $9.0-14.5 \times 5.6$ −9.4 cm, ovate-lanceolate to ovate, chartaceous; apex acute, acutemacronate or obtuse-acuminate; base slightly chordate, chordate or rounded; glabrous on both surfaces. Peduncles 0.2–1.5 cm long. Bracts  $0.03-0.1 \times 0.03-0.05$  cm, triangular, alternate. Pedicels 0.01-0.15 cm long. Flowers pink, inflorescence racemous, cauliflorous, hypanthium cylindrical, 1.4-4.7 cm long, 0.4-0.6 cm in diameter; sepals  $0.9-1.6 \times 0.3-$ 0.6 cm, oblong-lanceolate; petals 0.8- $1.3 \times 0.2-0.5$  cm, lanceolatetriangular; corona comprises 2 series of filaments, external series 0.1-0.2 cm long, liguliform, internal series 0.01-0.04 cm long, filaments continuous, crests or tubercles; operculum 0.3-1.0 cm long, erect, fimbriate in the upper third, filamentous; androgynophore 1.5-5.1 cm long, trochlea absent; ovary 0.4- $0.5 \times 0.1-0.25$  cm, obovate, ovateelliptical to closely elliptical, glabrous.



Fruit  $1.6-3.7 \times 0.7-2.0$  cm, ovoid to ellipsoid, glabrous.





### Passiflora balbis C. Feuillet 2002

Sous-genre Astrophea Super-section Pseudoastrophea Section Botryastrophea Série Carnae











#### Passiflora amoena Escobar 1994

### Subgenus Astrophea Supersection Pseudoastrophea Section

Botryastrophea Série Carnae

Distribution: Guiana plateaus.

Glabrous lianas with anomalous secondary xylem and strong tendrils. Leaf blades elliptic to ovate, 9.4-13.0 cm long, 4.0-7.5 cm wide, ob- tuse then abruptly acuminate, acute, or obtuse and emarginate at apex, obtuse to rounded at base, entire at margins, subcoriaceous to coriaceous, lustrous, drying dark brown on adaxial surface, glaucous and drying olive-green on ab- axial surface, with 5-8 pairs of major lateral veins; petioles stout, 1.5-2.8 (5.2) cm long, 1.0- 1.6 mm diam., 2-glandular on adaxial surface, at apex of petiole, with raised oval nectaries 1.5-2.3 mm long and 1.0-1.2 wide; stipules seta- ceous, ca. 0.3 mm long, deciduous. Flowering branches to 4 cm long, mostly on thick stems



close to base of plant; peduncles stout, 2.0-3.5 mm long, 1.3-1.7 mm diam.; bracts triangular, 1.0-1.3 mm long, 0.4-0.8 mm wide. Flowers sal- verform, 4.5-8.5 cm long, (including sepals) 3.5-4.0 cm wide, fleshy-coriaceous, borne erect or horizontally, pink;

floral stipe stout, 8-22 mm long, 1.4-1.8 mm diam.; hypanthium cylindrical, 3.0-4.9 cm long, 6-10 mm wide, ventricose at base, sepals oblong, 14-26 mm long, 8-16 mm wide, petals 12-18 mm long, 4-6 mm wide; corona in 3-5 series, fleshy, the outer series laterally compressed, ca. 7 mm long, ca. 1 mm wide at base, straight on outer margin, dilated to 1.6 mm wide 1-2 mm from base, then tapering obliquely ca. 5 mm to apex on inner margin, pink at base, yellow above, the second series tuberculate or laterally compressed, to 1 mm long, ca. 0.4 mm wide, the third series tuberculate or laterally compressed, to 0.5 mm long, the remaining series (if any) tuberculate; operculum erect, at base of hypanthium, ca. 5 mm long, slightly plicate at base, terminating from ca. midpoint in laterally compressed ligules at margin; ovary ellipsoidal, 4.0-4.5 mm long, ca. 2.5 mm wide (pressed), glabrous, pink; styles stout, 2.0-2.5 mm long, ca. 0.8 mm diam., glabrous, pink. Fruits ellipsoidal, 6-9 cm long, 3.5-5.0 cm wide, with coriaceous pericarp, green, with pink bloom; seeds obliquely obovate, ca. 5 mm long, ca. 3 mm wide, with finely reticulate testa, dark brown at maturity.







Passiflora amoena Escobar 1994 Subgenus Astrophea Supersection Pseudoastrophea Section Botryastrophea Série Carnae











#### Passiflora saulensis Feuillet 2002

#### Subgenus Astrophea Supersection Pseudoastrophea Section Botryastrophea Série Carnae

Distribution: French Guyana, Brazil. Liana, glabrous throughout. Young stem terete. Tendrils thick. Stipules narrowly triangular, minute, 0.2-0.3 mm long, early deciduous. Leaves: petiole 2-3 cm long, with 2 adaxial glands at the limit with the blade; blade ovate to suborbicular, 10-11 x 6-8 cm, obtuse at the apex and slightly emarginate, rounded at the base, margin entire, drying dark green with lighter brown veins adaxially, and light green with darker brown veins abaxially (glaucous green when fresh), 4 or 5 pairs of main lateral veins, tertiary veins not obvious, intermediate between scalariform and forming a loose net. Inflorescence cauliflorous, 10-80 cm long, the longer one resuming vegetative growth on the apical 10 cm, nodes 1-flowered; pedicels 18-24 mm long, jointed 6-8 mm from the base; bracts minute. Flowers red: hypanthium 3.5-4 cm long, not ventricose at the base, gently funnel-shaped, ca. 3 times as wide at the throat than at the base; sepals 15-30 mm long, rounded at the apex; petals 12-25 mm long; corona in 3 rows, the outmost row of flattened filaments, rounded at apex, slightly curved, 6 mm long, the inner 2

rows of filaments, 1.5 and 0.5 mm





inserted 1.3 cm from the base of the hypanthium, filamentous, 5-8 mm long; androgynophore 5-5.5 cm long; stamen filaments flat, 6 mm long, anther dorsifixed, 7.5 x 4 mm, rectangular; ovary 7-8 x 3 mm, styles 3 mm long, stigmas 4.5 mm diam. Fruit ovate to egg-shape, large, light pink to grey in colour when fully mature, pericarp slightly glaucous.





#### Passiflora fuschiiflora Hemsl 1898

Subgenus Astrophea Supersection *Pseudoastrophea* Section *Botryastrophea* Série *Carnae* 

Distribution: Guiana plateaus.

Woody vine with welldeveloped tendrils, glabrous throughout; stipules linear, 7 to 9 mm. long, 1.5 mm. wide, acuminate; petioles up to 8 cm. long, biglandular at apex; leaves broadly ovate or suborbicular, 10 to 18 cm. long, 8 to 14 cm. wide, obtuse or emarginated at apex, truncate at base,



penninerved (lateral nerves arcuate, 5 to 7 to a side), thick-coriaceous, lustrous above, bluish glaucous beneath; flowers borne in dense clusters or short racemes on the old wood (10 to 30 flowers to a cluster, the rachis up to 2.5 cm. long, bracteolate), fuchsia pink with a bright orange corona, scentless, the pedicels about 1 cm. long; calyx tube cylindric, 3 to 5 cm. long, 6 to 9 mm. wide, slightly narrowed toward base; sepals lanceolate, about 2 cm. long and 6 mm. wide, obtusish; petals similar and subequal to the sepals; corona filaments in 3 series, the outermost subdolabriform, about 1 cm. long, those of the 2 succeeding series tuberculiform, 0.5 mm. long or less; operculum borne near the base of the tube, erect, about 8 mm. high, membranous, fimbrillate; androgynophore very slender, sulcate in upper third; ovary narrowly obovoid, glabrous; fruit narrowly obovoid, green, maturing reddish brown.





#### Passiflora longiracemosa Ducke 1922

Subgenus Astrophea Supersection Pseudoastrophea Section Botryastrophea Série Carnae

Distribution: Guyana, Brazil (amazonia). High climbing, woody vine, with well developed tendrils, essentially glabrous throughout; stipules soon deciduous; petioles 2 fa 9 cm. long, biglandular at apex, the glands subsessile; leaves variable, ovate -orbicular to



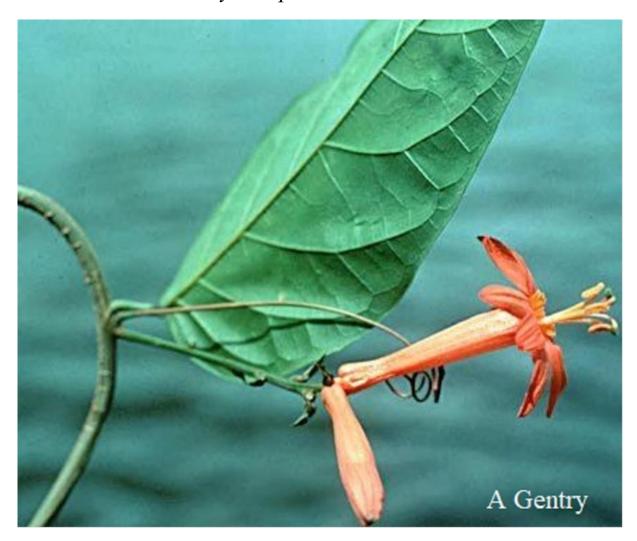
lance-oblong, ranging from the length and width being subequal to the length twice the width, up to 15 cm. long and wide, obtuse and emarginate at apex, shallowly cordate, penninerved (principal lateral nerves 5 to 7 to a side), thick-coriaceous, lustrous above, glaucous-pruinose beneath; inflorescence racemose, the racemes 20 to 60 cm. long, horizontally spreading, floriferous nearly to base, the pedicels 1.5 to 3 cm. long, subpendulous; flowers purplish, "coral pink"; calyx tube cylindric, 3 to 5 cm. long, 8 to 9 mm. in diameter, ventricose at base; sepals linear-oblong, 1 to 1.5 cm. long, 4 to 5 mm. wide, obtuse; petals slightly shorter and narrower than the sepals; corona filaments in 2 series, the outer filiform, 3 to 5 mm. long, violet at tips, the inner a ridge of minute, dark violet tubercles at throat of tube; operculum borne near base of tube, membranous, erect, about 1 cm. high, fimbrillate in upper third; ovary obovoid, glabrous; fruit obovoid, about 5 cm. long, 3 cm. In diameter, 6-angled, rose-red; the pericarp hard; seeds obovate, about 7 mm. long and 3.5 mm. wide, coarsely reticulate.





#### Passiflora holtii Killip 1938

#### Subgenus Astrophea Supersection Pseudoastrophea Section Botryastrophea Série Carnae



Distribution: Brazil(Amazonas).

Subscandent shrub, the tendrils slender but well developed; plant glabrous throughout, except the ovary; stipules soon deciduous; petioles 3 to 5 mm. long, biglandular at apex, the glands scarlike, inconspicuous; leaves ovate or ovate-lanceolate, 12 to 15 cm. long, 6 to 8 cm. wide, caudateacuminate (tip about 1.5 cm. long), rounded, occasionally suboblique, at base, penninerved (principal lateral nerves 6 or 7 to a side), conspicuously reticulate-veined, entire, subcoriaceous, lustrous; inflorescence pseudoracemose, the rachis 15 to 30 cm. long, floriferous only above middle, bearing a few abortive leaves, the pedicels 1 to 1.5 mm. long, thick, erect; calyx tube narrowly cylindric, 3.5 cm. long, 4 to 6 mm. in diameter, ventricose at base; sepals narrowly oblong, about 2 cm. long and 5 mm. wide, obtuse; petals similar and equal to the sepals; corona filaments in 2 series, the outer filiform, about 2.5 mm. long, the inner capillary, about 1 mm. long; operculum borne just below middle of tube, erect, filamentose to base, the filaments 4 to 5 mm. long; gynophore slender, 5 cm. long; ovary narrowly ovoid, rufo-sericeous.



#### Passiflora ascidia C. Feuillet 2002

#### Subgenus Astrophea Supersection Pseudoastrophea Section Botryastrophea Série Carnae

Distribution: Guyana, Venezuela. Liana reaching the canopy, glabrous throughout. Young stems terete. Tendrils long and thin when young. Stipules not seen, soon deciduous. Leaves: petiole 1–2 cm long, with 2 adaxial glands at the edge of the blade; blade ovate to lanceolate, 7–133 3.5-8 cm, obtuse or rounded to emarginate at the apex, rounded at the base, the margin entire, drying dark brown with pale veins adaxially and paler with dark veins abaxially, 6-8 main lateral veins on each side of the midrib, tertiary venation somewhat scalariform. Inflorescence 12–25 cm long, cauliflorous. Pedicels 20–30 mm long, joined 2–4 mm from the base. Flowers pink outside ("bright pink" or "fluorescent pink," according to collectors), pink and white inside; hypanthium 2-2.7 cm long, round and dark at the base, then narrowly barrelshaped, narrow at the



throat; sepals lanceolate, 8–9 3 3.5 mm; petals similar to the sepals, about 1/4 smaller; corona in 3 rows, the outermost of scattered 2–2.5 mm long filaments, the middle row of 0.5–1 mm long filaments or like the innermost, the innermost row of 0.1–0.2 mm tubercle; operculum attached near the base of the hypanthium, mostly filamentous, 7 mm long; disk whitish; androgynophore ca. 4.5 cm long; stamen filaments 4–5 mm long, anthers dorsifixed, rectangular, 4 3 1.5–2 mm; ovary 2.5–3 mm long, elliptic, glabrous; styles 2.5 mm long; stigmas ca. 1 mm wide. Fruit not seen.