

URTICACEAE

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Annual or perennial, fibrous herbs or subshrubs, sometimes provided with stinging hairs. Leaves simple, alternate or opposite, those of a pair often unequal. Stipules present or rarely wanting. Inflorescence consisting of bracteated cymes, pseudo-spikes or pseudo-heads, sometimes flowers solitary; cymes borne on a short or elongate axis arising from the upper leaf-axils. Flowers unisexual or rarely hermaphrodite, small, actinomorphic. Tepals (2—)4—5, free or connate. Male flowers: stamens as many as the tepals, epitepalous; filaments free, curved inwards in bud and springing back elastically at anthesis; anthers 2-celled, with longitudinal dehiscence; ovary rudimentary or wanting. Female flowers: scale-like staminodes often present at the base of the ovary; ovary superior or inferior, unilocular; style 1; stigma 1; ovule one, basal. Fruit a drupe or achene, often enclosed by the persistent perianth. Embryo straight. Endosperm present or wanting. Cotyledons thick and flat.

Nearly 700 species in about 42 genera, mostly tropical and subtropical, especially in the New World.

Key to the genera:

1. Leaves opposite *Pilea*
Leaves alternate 2
2. Shrubs or trees 3
Herbs 4
3. Leaves ovate to orbicular-ovate; plants with stinging hairs . . . *Urera*
Leaves of two forms, the larger ones inequilateral, ovate and up to 18 cm long, alternating with smaller lanceolate leaves, up to 6 cm long; plants without stinging hairs *Boehmeria*
4. Flowers in axillary paniculate cymes; leaves coarsely serrate or dentate; plants usually with stinging hairs *Laportea*

Flowers in axillary clusters; leaves entire; plants without stinging hairs
. *Rousselia*

Urera Gaudichaud, Freyc. Bot. Voy. 496. 1830

Dioecious or rarely monoecious shrubs or small trees with herbaceous to ligneous stems and branches, usually with stinging hairs or prickles. Leaves alternate, entire, sinuate or toothed, usually with numerous small, dot-like or linear cystoliths, triplinerved with 5—10 pairs of veins. Stipules connate, more or less free at the top. Inflorescence consisting of unisexual panicles, pseudo-dichotomously, cymose or irregularly branched, axillary or at the older nodes. Flowers sessile to pedicellate, solitary or in glomerules. Male flowers: tepals 4—5, united at the base, the lobes imbricate; stamens 4—5; ovary rudimentary. Female flowers: tepals 4, subequal or the exterior ones smaller, united at the base; ovary superior; stigma subsessile, penicillate, persistent; ovule erect. Fruit an achene, straight or oblique, surrounded or enclosed by the fleshy, enlarged perianth. Endosperm scanty or wanting.

About 30 species, natives of tropical America and Africa, the Mascarenes and Pacific Islands.

Urera caracasana (Jacq.) Gaud.

GAUDICHAUD, Freyc. Bot. Voy. 496. 1830; GRISEBACH, Fl. Br. W. Ind. Isl. 154. 1859; DUSS, Fl. phan. Ant. franç. 161. 1897; URBAN, Symb. Ant. 4: 199. 1905; BOLDINGH, Fl. D.W. Ind. Isl. 1: 50. 1909; Fl. Ned. W. Ind. Eil. 168. 1913; FAWCETT & RENDLE, Fl. Jamaica 3(1): 57, fig. 18. 1914; BRITTON & WILSON, Sci. Surv. Porto Rico & Virgin Isl. 5: 244. 1924; ADAMS, Flowering plants of Jamaica 237. 1972; — *Urtica caracasana* JACQUIN, Hort. Schoenbr. 3: 71, tab. 386. 1798.

Dioecious shrub, up to 6 m tall, the younger twigs armed with sharp, slender, stinging hairs. Leaves ovate to orbicular-ovate, acuminate at the apex, cordate with a broad open sinus or rounded at the base, very variable in size, the lower leaves up to 25—35 × 20—28 cm, the upper ones smaller, margin crenate-dentate, scabrid-hispid above, more or less soft pubescent underneath especially when young, with slender, stinging hairs on the veins, pinniveined; petioles 2—20 cm long, pubescent and often armed with scattered stinging hairs when young. Stipules 5—14 mm long, puberulous. Inflorescence consisting of repeatedly pseudo-dichotomously branches with shortened terminal axes. Male flowers: sessile; tepals ovate, acute at the apex, connate at the base, about 1 mm long; filaments up to 2 mm long; the anthers oblong; pistillode membranaceous. Female flowers: subsessile or shortly pedicellate; tepals unequal, broadly ovate, very small; stigma subsessile, penicillate; achene about 1.5 mm long and 1 mm wide, orange to vermillion, enveloped by the perianth.

Continental tropical America from southern Mexico to Brazil; Antilles.

In seasonal forest.

ST. EUSTATIUS: Bottom of The Quill, 350 m (Boldingh 438, fr. June; 903, st. June; 909, fr. June); without loc. (v. Groll-Meyer 222, st.).

Pilea Lindley, Coll. Bot. pl. 4. 1821

Monococious or dioecious, annual or perennial herbs, rarely shrubby at the base, sometimes creeping or diffuse, usually succulent; stems simple or branched. Leaves opposite or alternate by abortion of one leaf of the pair, those of a pair equal or very unequal, entire or dentate, 3-veined, often with conspicuous cystoliths. Stipules connate. Inflorescence consisting of axillary, unisexual or androgynous clusters, spikes, cymes or panicles. Bracts small. Male flower: tepals 4 (or 2—3); stamens as many as the tepals; ovary rudimentary. Female flowers: 3-partite, the segments often unequal; staminodes epitepalous, scale-like or more or less resembling the tepals; ovary straight; stigma sessile, penicillate. Achene ovate or orbicular, lenticular compressed, more or less incompletely included in the persistent perianth. Endosperm scanty or wanting. Cotyledons broad.

About 200 species in tropical America, Africa, and Asia; most abundant in America.

Key to the species:

1. Leaves all entire or subentire 2
Leaves not all entire 4
2. Leaves over 2 cm long *P. parietaria*
Leaves less than 1.5 cm 3
3. Plants often becoming shrubby; stems and leaves fleshy; petioles shorter than the blade (Windward Group) *P. microphylla*
Plants tufted or prostrate; stems and leaves somewhat succulent; petioles equalling or exceeding the blade in length (Leeward Group)
. *P. tenerrima*
4. Leaves orbicular to broadly oval, up to 2 cm long and wide; margins crenate, except near the base *P. nummulariifolia*
Leaves lanceolate to oblong-obovate or broadly ovate, 1.5—4.5 times as long as wide, margins serrate or coarsely crenate-dentate 5
5. Leaves 2—15 cm long, 4—5 times as long as wide, the margin serrate, denticulate or incised-serrate; stipules elliptic to ovate, up to 1.5 cm long *P. semidentata*
Leaves 3—9 cm long, about 1.5 times as long as wide, the margins coarsely crenate-dentate; stipules broadly ovate or orbicular, 2—3 mm long
. *P. obtusata*

***Pilea semidentata* (Juss.) Wedd.**

WEDDELL, Ann. Sci. Nat. 3: 18, 215. 1852; URBAN, Symb. Ant. 4: 202. 1905; BOLDINGH, Fl. D.W. Ind. Isl. 1: 51. 1909; Fl. Ned. W. Ind. Eil. 170. 1913; URBAN, Symb. Ant. 3: 177. 1920; BRITTON & WILSON, Sci. Surv. Porto Rico & Virgin Isl. 5: 249. 1924; — *Urtica semidentata* JUSSIEU apud POIRET in LAMARCK, Encycl. Suppl. 4: 222. 1816.

Monoecious, erect, glabrous herb, up to 50 cm tall, somewhat succulent. Leaves opposite, those of a pair equal or only slightly unequal; blade lanceolate to oblong-lanceolate or oblong-obovate, acuminate at the apex, cuneate or rarely rounded at the base, 2—15 × 0.5—2.5 cm, usually 4—5 times as long as wide, usually 3-veined from near the base; margin serrate, denticulate or incised-serrate; cystoliths linear; petiole about 2 cm long. Stipules elliptic to ovate, persistent, up to 1.5 cm long. Inflorescence long-pedunculate, the male one capitate, the female paniculate with spreading branches; flowers reddish. Male flowers: tepals 4, connate at the very base, ovate to oblong, about 2 × 0.75 mm, at the apex provided with a thickened appendage. Stamens 4; filaments more or less ligulate, about 2 mm long; anthers roundish, about 1 × 1 mm; ovary rudimentary. Female flowers: tepals 3, connate at the base, strongly unequal, subcucullate, linear-oblong to broadly oblong, about 0.75 mm long; staminodes scale-like; ovary ovate-oblong, slightly compressed, stigmas sessile, penicillate. Achene ovate, 0.8 — 1 × 0.5 mm.

Puerto Rico, Hispaniola, and Saba to Martinique.

Shady places.

SABA: along roads between The Bottom and Windwardside, 200 m (Boldingh 1338, fl. & fr. July); between Crispine and Small Rendez Vous, 350 m (Stoffers 3062, fl. & fr. Ap.); gut between Hellsgate and Mastic Gut, 300—400 m (Boldingh 2063, fl. & fr. July); road to Windwardside (Arnoldo 707, fl. Aug.); Booby Hill, 400 m (Stoffers 4327, fl. & fr. Aug.); gut near The Saddle, 300 m (Stoffers 4133, st. Aug.); Castle Hill, seaside, 300—350 m (Stoffers 4196, fl. & fr. Aug.); near The Saddle, 350—400 m (Stoffers 4129, fl. Aug.); slope of The Mountain near Windwardside (Stoffers 3340, fl. May); slope of The Mountain at the Rendez Vous side, 600—680 m (Stoffers 3240, fl. May); along road from The Bottom to Crispine, 220—350 m (Stoffers 2968, fl. Ap.); Gainbay Cut (Suringar s.n., fl. Ap. [L]).

ST. EUSTATIUS: The Quill (Suringar s.n., fl. May [L]; s.n., st. Ap. [L]); top of The Quill, 450 m (Boldingh 351, st. June; 368, fl. & fr. June); id. 400 m (Boldingh 175, fl. & fr. June; 340, fl. & fr. June; Stoffers 3970, fl. & fr. July); top of The Quill, near Bengalen, 150 m (Boldingh 685, fl. June); top of The Quill above Glass Bottle (Stoffers 3587, fl. & fr. July); without loc. (v. Groll-Meyer 192, fl. & fr.).

***Pilea nummulariifolia* (Sw.) Wedd.**

WEDDELL, Ann. Sci. Nat. 2: 18, 225. 1852; Duss, Fl. phan. Ant. franç. 158. 1897; URBAN, Symb. Ant. 4: 204. 1905; BOLDINGH, Fl. Ned. W. Ind. Eil. 169. 1913; Fl. D.W. Ind. Isl.

2: 21. 1914; FAWCETT & RENDLE, Fl. Jamaica 3(1): 75. 1914; URBAN, Symb. Ant. 8: 179. 1920; BRITTON & WILSON, Sci. Surv. Porto Rico & Virgin Isl. 5: 248. 1924; QUESTEL, Fl. Isl. St. Bartholomew 96. 1941; LEON & ALAIN, Fl. Cuba 2: 59, fig. 23. 1951; ADAMS, Flowering plants of Jamaica 232. 1972; — *Urtica nummulariaefolia* SWARTZ, Vet. Akad. Handl. Stockholm 8: 63. 1787.

Monoecious, pilose, creeping herb; stems elongate, rooting at the nodes; branchlets erect or ascending. Leaves opposite, those of a pair of nearly the same size and form; blade orbicular to broadly oval, rounded at the apex, sometimes truncate at the base, 0.5—2.0 cm long and nearly as wide, 3-veined, hispid on both sides, cystoliths linear; margin crenate, except near the base; petiole 3—20 mm long, pilose. Stipules ovate to roundish-ovate, up to about 2.5 mm long. Inflorescence consisting of small, dense, unisexual or androgynous cymes; the male ones terminal, about half as long as the leaves, the female ones axillary or terminal, equalling or shorter than the petioles. Male flowers: pedicels hirsute, 3—5 mm long; tepals basally connate; lobes elliptic, 2—2.4 × 1—1.2 mm with broadly triangular, hirsute, dorsal appendages. Female flowers: subsessile or pedicellate; median perianth-segment 0.3—0.4 mm long, about twice as long as the lateral ones. Achene oblique roundish-ovate or ovoid, 0.6—0.7 mm long.

Bermuda, Greater Antilles, and Virgin Islands, Antigua and Barbados.

Cultivated and sometimes escaped from cultivation.

SABA: Hellsgate (Boldingh 1692, st. June); Windwardside (Arnoldo 590, st. Aug.); slope of The Mountain at "Under the Cliff", 660 m (Stoffers 4247, st. Aug.); Booby Hill, 400 m (Stoffers 4337, st. Aug.).

***Pilea parietaria* (L.) Bl.**

BLUME, Mus. Bot. Lugd. Bat. 2: 48. 1856; GRISEBACH, Fl. Br. W. Ind. Isl. 156. 1859; URBAN, Symb. Ant. 4: 201. 1905; BOLDINGH, Fl. D.W. Ind. Isl. 1: 51. 1909; Fl. Ned. W. Ind. Eil. 170. 1913; FAWCETT & RENDLE, Fl. Jamaica 3(1): 65. 1914; URBAN, Symb. Ant. 8: 175. 1920; BRITTON & WILSON, Sci. Surv. Porto Rico & Virgin Isl. 5: 247. 1924; LEON & ALAIN, Fl. Cuba 2: 63. 1951; GOODING *et al.*, Fl. Barbados 127. 1965; ADAMS, Flowering plants of Jamaica 229. 1972; — *Urtica parietaria* LINNAEUS, Spec. Plant. 985. 1753; — *Pilea parietaria* L. var. *wydleri* URBAN, Symb. Ant. 4: 201. 1905; Symb. Ant. 8: 175. 1920.

Monoecious, suffrutescent herb, simple or branched; stems ascending, glabrous, up to 40 cm tall. Leaves of each pair subequal; blade elliptic to ovate-lanceolate or broadly ovate, acute or acuminate at the apex, obtuse, rounded or slightly subcordate at the base, 2—9 × 1—4.5 cm, about 2—3 times as long as wide, 3-veined from the base, glabrous above or with scattered pellucid hairs, glabrous or pubescent on the veins beneath, cystoliths small and inconspicuous above, large and conspicuous beneath; margin entire, often ciliate; petiole slender, 2.5—4 cm long, glabrous or pilose. Stipules caducous, triangular, 1—2 mm

long. Inflorescence consisting of androgynous clusters, arranged in axillary and terminal paniculate cymes; peduncles 1 or more in the leaf-axil. Male flowers: perianth 0.7—1 mm long, with short dorsal appendages. Female flowers: lateral segments acuminate, more than half as long as the median one; the latter 0.5 mm long, with dorsal appendage somewhat tumid or keeled, ending in a small mucro. Achene ovate-elliptic, 0.6—0.7 mm long, smooth.

Greater Antilles, Lesser Antilles from Saba to Grenada, and Central America.

In damp, shady places.

SABA: road to The Mountain (Arnoldo 1357, fl. & fr. March); top of The Mountain, 800 m (Boldingh 1788, st. July; 1800, fl. & fr. July); 800—835 m (Stoffers 4223, st. Aug.); slope of The Mountain, 650—800 m (Stoffers 3469, fl. June).

***Pilea microphylla* (L.) Liebm.**

LIEBMANN, Dansk Vid. Selsk. Skr. Raekke 5, 2: 296. 1851. GRISEBACH, Fl. Br. W. Ind. Isl. 155. 1859; DUSS, Fl. phan. Ant. franç. 161. 1897; URBAN, Symb. Ant. 4: 200. 1905; BOLDINGH, Fl. D.W. Ind. Isl. 1: 50. 1909; Fl. Ned. W. Ind. Eil. 169. 1913; Fl. D.W. Ind. Isl. 2: 21. 1914; FAWCETT & RENDLE, Fl. Jamaica 3(1): 62. 1914; URBAN, Symb. Ant. 8: 171. 1920; BRITTON & MILLSPAUGH, Bahama Fl. 106. 1920; BRITTON & WILSON, Sci. Surv. Porto Rico & Virgin Isl. 5: 245. 1924; QUESTEL, Fl. Isl. St. Bartholomew 96. 1941; LEON & ALAIN, Fl. Cuba 2: 59. 1951; ARNOLDO, Gekw. en nutt. pl. Ned. Ant. 108, fig. 173. 1954; GOODING *et al.*, Fl. Barbados 127. 1965; — *Parietaria microphylla* LINNAEUS, Syst. Nat. ed. 10. 1308. 1759; — *Urtica trianthemoides* SWARTZ, Vet. Akad. Handl. Stockholm 8: 68. 1787; Fl. Ind. Occ. 1: 307. 1797; — *Pilea microphylla* L. var. *trianthemoides* (Sw.) GRISEBACH, Fl. Br. W. Ind. Isl. 155. 1859; URBAN, Symb. Ant. 8: 171. 1920; — *Urtica microphylla* (L.) SWARTZ, Vet. Akad. Handl. Stockholm 8: 66. 1787.

Monoecious or dioecious, glabrous herb, often becoming shrubby; stems fleshy, erect, ascending or sometimes creeping and rooting at the base only, up to 30 cm (or more) long. Leaves small, those of a pair often unequal, often crowded; blade obovate, suborbicular, elliptic or oblong, obtuse or acutish at the apex, cuneate-attenuate at the base, 1.5—10 × 0.7—6 mm, entire, 1-veined, thick and fleshy, cystoliths linear, transverse, prominent on the upper surface; petioles filiform, short, 1—3 mm long, shorter than the blades. Inflorescence consisting of small, sessile, androgynous or unisexual clusters, shorter than the leaves. Flowers greenish, tinged with white and red. Male flowers: pedicels 0.75 mm long; tepals 1 mm long, ovate, thin with short and broad, glabrous, dorsal appendages. Female flowers: subsessile; median tepal cucullate, scarcely longer than the lateral ones and slightly shorter than the achene. Achene ovate or oblong in outline, lenticular, 0.5 mm long, rough.

Florida, Bermuda, West Indies, and tropical continental America.

Shady places and in crevices; cultivated in the islands of Aruba, Bonaire, and Curaçao.

SABA: between Hellsgate and Mastic Gut (Boldingh 2072, fl. & fr. July); Windwardside (Boldingh 1900, fl. & fr. July); Ladder Gut, 0—200 m (Boldingh 2020, st. July); 0—100 m (Stoffers 2827, st. Ap.); along roads between The Bottom and Windwardside, 200 m (Boldingh 1330, fl. & fr. July; Arnaldo 685, fl. & fr. Aug.); The Mountain near Windwardside, 600 m (Boldingh 2173, fl. & fr. July); slope of The Mountain near St. John, 250 m (Boldingh 1733, fl. & fr. July); road to Hellsgate (Arnaldo 760, fl. & fr. Aug.); The Bottom (Arnaldo 736, fl. & fr. Aug.); Hellsgate (Stoffers 3388, fl. & fr. May (cult.)); id. on stone wall (Stoffers 4330, fl. & fr. Aug.); Booby Hill, 400 m (Stoffers 4293, fl. & fr. Aug.); Great Hill (Suringar s.n., fr. Ap. [L] p.p.); Rendez Vous, 475 m, on stone wall (Stoffers 4259, fl. & fr. Aug.).

ST. EUSTATIUS: Signal Hill, 200 m (Boldingh 137, fr. May); near Mary's Glory, 150 m (Boldingh 1156, st. June); Little Mountains (Stoffers 3753, st. July); without loc. (v. Groll-Meyer 150, st.).

ST. MARTIN: mountain between Mont des Accords and Sentry Hill, 200—300 m (Boldingh 2900, st. Aug.); Mount Paradise, 300—400 m (Boldingh 3235, fl. & fr. Sept.); Philipsburg (Arnaldo 1304, fl. March (cult.); Stoffers 2463, fl. & fr. March); along eastern side of Great Bay (Stoffers 2221, fl. & fr. March).

***Pilea tenerrima* Miq.**

MIQUEL, *Linnaea* 26: 219. 1854; BRITTON & MILLSAUGH, *Bahama Fl.* 107. 1920; BRITTON & WILSON, *Sci. Surv. Porto Rico & Virgin Isl.* 5: 246. 1924; LEON & ALAIN, *Fl. Cuba* 2: 60. 1954; ARNALDO, *Zakflora* 115. 1954; *Zakflora* 205. 1964; — *Pilea herniarioides* auct. non LINDLEY; BOLDINGH, *Fl. Ned. W. Ind. Eil.* 169. 1913; *Fl. D.W. Ind. Isl.* 2: 21. 1914.

Somewhat succulent herb; stems very slender to nearly filiform, up to 10 cm long, more or less branched, tufted or prostrate. Leaves opposite, those of a pair unequal; blade suborbicular or obovate, rounded or obtuse at the apex, obliquely cuneate or obtuse at the base, 2—8 × 2—7 mm, entire, glabrous, thin and flaccid, 1-veined, cystoliths linear; petioles slender, equalling or exceeding the blade in length. Inflorescence consisting of small, short-pedunculate, axillary clusters, shorter than the leaves. Male flowers: tepals ovate, acutish at the apex, thin, with short dorsal appendages. Female flowers: subsessile; tepals ovate, acute at the apex, thin, the median one cucullate, 0.75 mm long; lateral ones nearly 0.5 mm long. Achene oblong, 0.5 mm long, brown.

Florida, Bahamas, Puerto Rico, Cuba, Aruba, Bonaire, Curaçao, and continental South America.

In crevices, especially in the limestone area.

ARUBA: calcareous slope of Canashito (Boldingh 6371, fl. & fr. Dec.; 6379, fl. & fr. Dec.); calcareous plateau of Belashi (Boldingh 6433, fl. & fr. Dec.); calcareous soil near San Nicolas (Boldingh 6500, fl. & fr. Jan.); Seroe Alejandro (Stoffers 1974, fl. & fr. Jan.); Hooiberg (Suringar s.n., fr. [L]).

BOINAIRE: calcareous hill near Rincón (Boldingh 7041, fl. & fr. Feb.).

CURAÇAO: Seroe Christoffel (Suringar s.n., fl. & fr. Feb. [L]; Burgers 143, fl. & fr. Feb.); id. near Pedro Molina (de Wilde 18, fl. & fr. Jan.; Stoffers 1302, fl. & fr. Dec.); road from Knip to Westpunt (Boldingh 5573, fl. & fr. Dec.); seashore near Hato (Boldingh 5114, fl. & fr. Nov.); hills near Hermanus (Boldingh 5648, fl. & fr. Dec.); coastal limestone near Willemstad (Britton & Shafer 2949, fl. & fr. March); Grote Berg (Arnoldo 23, fl. & fr. Dec.); Fort Nassau (Suringar s.n., fr. Jan. [L]).

***Pilea obtusata* Liebm.**

LIEBMANN, Dansk Vet. Selsk. Skr. Raekke 5, 2: 300. 1851; URBAN, Symb. Ant. 4: 203. 1905; BOLDINGH, Fl. D.W. Ind. Isl. 1: 51. 1909; Fl. Ned. W. Ind. Eil. 169. 1913; FAWCETT & RENDLE, Fl. Jamaica 3(1): 78. 1914; BRITTON & WILSON, Sci. Surv. Porto Rico & Virgin Isl. 5: 249. 1924; ADAMS, Flowering plants of Jamaica 235. 1972; — *Pilea pubescens* auct. non LIEBMANN; GRISEBACH, Fl. Br. W. Ind. Isl. 159. 1859.

Dioecious or monoecious herb, up to 50 cm high; stems erect, pilose. Leaves of each pair more or less unequal; blade broadly ovate, acutish or obtuse at the apex, rounded, obtuse or subcordate at the base, 3—9 × 2—7 cm, usually about 1.5 times as long as wide, 3-veined from near the base, glabrous or pilose above, pilose beneath especially on the veins, cystoliths linear, margin coarsely crenate-dentate; petioles 0.5—4 cm long, pilose. Stipules broadly ovate or orbicular, 2—3 mm long. Inflorescence consisting of terminal or axillary, diffusely branched cymes; peduncle up to 8 cm long. Male flowers: subsessile; tepals connate at the base, 1.5 mm long, with tapering appendages. Female flowers: sessile or subsessile; tepals 3, strongly unequal, subcucullate, linear-oblong to oblong, up to 0.75 mm long, staminodes scale-like. Achene elliptic-ovate or ovate, 0.7—0.8 × 0.5 mm, minutely mucronate.

Puerto Rico, Jamaica, Saba, Montserrat, and Martinique.

Mainly in damp places, at middle elevations.

SABA: top of The Mountain, 800 m (Boldingh 1783a, fl. July; 1786a, fl. & fr. July; 2218a, fl. & fr. July); id. 800—825 m (Stoffers 4220, fl. & fr. Aug.); road to The Mountain (Arnoldo 864, fl. & fr. Aug.).

***Boehmeria* Jacquin, Enum. Syst. Pl. Car. 9, 31. 1760**

Monoecious or dioecious, perennial herbs, shrubs or trees, without stinging hairs. Leaves opposite or alternate, equilateral or inequilateral, dentate, 3-veined, often with dot-like cystoliths. Stipules free or only basally connate, deciduous. Inflorescence consisting of unisexual, small, globose clusters, solitary in the leaf-axils or on the nodes or arranged in a spike or panicle. Bracts small, scarious. Male flowers: tepals 3—5, free or partly united; stamens as many as the tepals; ovary rudimentary. Female flowers: perianth tubular or urceolate, 2- or 4-toothed, sometimes enlarged in the fruit; ovary sessile or stipitate,

included by the perianth; stigma subulate, papillose on one side, persistent in fruit; ovule erect; fruit an achene, enclosed by the withering-persistent perianth. Seed small. Endosperm present.

Over 50 species, natives of the warmer regions, mostly in the tropics.

Boehmeria ramiflora Jacq.

JACQUIN, Enum. Syst. Pl. Carib. 31. 1760, nomen; Sel. Stirp. Amer. 246, t. 157. 1763; GRISEBACH, Fl. Br. W. Ind. Isl. 160. 1859, p.p.; DUSS, Fl. phan. Ant. franç. 163. 1897; BOLDINGH, Fl. D.W. Ind. Isl. 1: 52. 1909; Fl. Ned. W. Ind. Eil. 170. 1913; FAWCETT & RENDLE, Fl. Jamaica 3(1): 82. 1914; GOODING *et al.*, Fl. Barbados 125. 1965.

Shrub, up to 2.5 m tall. Leaves alternate, of two forms, larger leaves alternating with smaller ones, blades serrate, sparsely hairy on the upper surface, pubescent beneath; the larger leaves inequilateral, ovate, long-acuminate at the apex, acute or obtuse at the apex, 7—18 × 2.5—6 cm, usually about 2.5 times as long as wide, the petiole 2.5—4 cm long, pilose; the smaller leaves lanceolate, acuminate or long-acuminate at the apex, cordate or rounded at the base, 2—6 × 0.5—2 cm, about 3 times as long as wide; petiole 1 cm long or less. Stipules lanceolate, 1 cm long. Inflorescence consisting of clusters in the leaf-axils, or on the nodes, about 0.5 cm in diam. Male flowers: bracts broadly obovate, slightly over 1 mm long and nearly 1 mm wide, more or less emarginate at the apex; tepals 3, connate at the very base, oblong, about 1 mm long, provided with thick dorsal appendages; stamens 3, filaments exceeding the tepals in length, anthers small, roundish; ovary rudimentary. Female flowers: perianth 2-toothed, contracted above the ovary, pilose; stigma 1.5—2.5 mm long. Achene ovate-lanceolate, compressed, about 1.5 mm long.

Lesser Antilles, Jamaica, Central America, and northern South America.

Damp places, at middle elevation.

SABA: road to The Mountain (Arnoldo 806, fl. & fr. Aug.); The Mountain, 800 m (Boldingh 2219, fl. & fr. July; Arnoldo 3307, st. Dec.); near Santa Cruz (Stoffers 3439, fl. May); road to Santa Cruz, 500—600 m (Stoffers 4353, fl. Aug.).

ST. EUSTATIUS: Bottom of The Quill, 300 m (Boldingh 447, fl. & fr. June); The Quill (Suringar s.n., fl. & fr. May [L]); Bengalen (Suringar s.n., fl. & fr. May [L]).

Laportea Gaudichaud in Freyc. Voy. Bot. 498. 1830 ("1826"), nom. cons. n. 1980

Monoecious or dioecious, somewhat succulent annual herbs, with or without stinging hairs. Leaves alternate, 3-veined at the base and pinniveined above, dentate, with linear cystoliths. Stipules connate into one, bifid, intra-petiolar stipule. Inflorescence consisting of unisexual or androgynous clusters, arranged in solitary, axillary panicles. Male flowers: perianth 4—5-parted, subvalvate or slightly imbricate; stamens 4—5; ovary rudimentary. Female flowers:

perianth segments 4, imbricate, subequal or very unequal; ovary straight, becoming soon oblique, stigma oblique-ovate, becoming hooked; ovule erect from the base. Achene oblique, compressed, exserted from the perianth. Endosperm very scanty; cotyledons broad.

About 20 species in tropical regions, mostly in Africa.

Laportea aestuans (L.) Chew

CHEW in Gard. Bull. Singapore 21(2): 200. 1965; ADAMS, Flowering plants of Jamaica 236. 1972; — *Urtica aestuans* LINNAEUS, Spec. Plant. ed. 2. 1397. 1763; — *Fleurya aestuans* (L.) GAUDICHAUD, Freyc. Voy. Bot. 497. 1830; GRISEBACH, Fl. Br. W. Ind. Isl. 154. 1859; DUSS, Fl. phan. Ant. franç. 160. 1897; URBAN, Symb. Ant. 4: 200. 1905; BOLDINGH, Fl. D.W. Ind. Isl. 1: 50. 1909; Fl. Ned. W. Ind. Eil. 168. 1913; FAWCETT & RENDLE, Fl. Jamaica 3(1): 59, fig. 19. 1914; BRITTON & MILLSPAUGH, Bahama Fl. 106. 1920; URBAN, Symb. Ant. 8: 170. 1920; BRITTON & WILSON, Sci. Surv. Porto Rico & Virgin Isl. 5: 244. 1924; LEON & ALAIN, Fl. Cuba 2: 58. 1951; GOODING *et al.*, Fl. Barbados 126. 1965.

Erect or ascending, simple or little branched herb, usually not exceeding 1 m in height; stems succulent, often very glandular, densely hirsute or almost glabrous and usually armed with stinging hairs. Leaves long-petiolate; blade thin, ovate or roundish-ovate, acute or acuminate at the apex, rounded or subcordate at the base, coarsely dentate or crenate, up to about 8 cm long. Panicles shorter than or equalling the leaves, peduncle slender; clusters androgynous and female, in the same panicle, but sometimes the male flowers in distinct panicles. Male flowers: tepals 4, ovate, about 1 mm long, each provided with 1—3 needle-like, dorsal appendages. Female flowers: perianth-segments strongly unequal, the larger ones ovate, acuminate at the apex, about 1 mm long, the smaller ones minute; stigma small. Achene ovate, compressed, oblique, 1—1.5 mm long.

Tropical continental America, tropical Africa, and West Indies.

Waste grounds.

Vernacular names: stinging nettle (Windward Group).

SABA: near Sulphur mines (Boldingh 1703, fl. & fr. July); The Bottom (Arnoldo 536, fl. & fr. Aug.); Ladder Gut, 100—200 m (Stoffers 2758, fl. & fr. Ap.).

ST. EUSTATIUS: Glass Gut near the seashore (Boldingh 47, fl. & fr. May); along roads in Oranjestad (Boldingh 1079, fl. & fr. June; Suringar s.n., fl. & fr. Ap. [L]); without loc. (v. Groll-Meyer 135, fl. & fr.).

ST. MARTIN: Milldrum Hill, in plantation, 300 m (Boldingh 3132, fl. & fr. Sept.).

Rousselia Gaudichaud, Freyc. Bot. Voy. 503. 1830 ("1826")

A monoecious, low, diffuse, annual or perennial, slender, strongly branched herb, without stinging hairs. Leaves alternate, entire. Stipules small, free.

Flowers small. Male flowers in small, axillary clusters, each flower subtended by a linear bract; perianth 4-partite; stamens 4; ovary rudimentary. Female flowers geminate, bi-bracteate, the bracts foliaceous, broad, distinct, but accrescent to the flower; perianth urceolate and 2—4-dentate; ovary straight; stigma filiform, curved, papillose-plumose on one side; ovule erect from the base. Achene compressed ovate, enclosed by the accrescent perianth and attached bract persistent. Endosperm scanty.

A monotypic genus in the West Indies and continental tropical America from Yucatan to Colombia.

Rousselia humilis (Sw.) Urb.

URBAN, Symb. Ant. 4: 205. 1905; BOLDINGH, Fl. D.W. Ind. Isl. 1: 52. 1909; Fl. Ned. W. Ind. Eil. 170. 1913; FAWCETT & RENDLE, Fl. Jamaica 3(1): 84, fig. 22. 1914; BRITTON & MILLSPAUGH, Bahama Fl. 107. 1920; URBAN, Symb. Ant. 8: 181. 1920; BRITTON & WILSON, Sci. Surv. Porto Rico & Virgin Isl. 5: 252. 1924; LEON & ALAIN, Fl. Cuba 2: 70, fig. 25. 1951; ADAMS, Flowering plants of Jamaica 236. 1972; — *Urtica humilis* SWARTZ, Vet. Akad. Handl. Stockholm 6: 34. 1785; — *Rousselia lappulacea* SWARTZ, Vet. Akad. Handl. Stockholm 8: 69. 1787; — *Rousselia lappulacea* GAUDICHAUD, Freyc. Bot. Voy. 503. 1830.

A mostly annual, pubescent herb; stems slender, prostrate or ascending, up to 50 cm long. Leaves petiolate; blade broadly ovate to elliptic, acute to acuminate at the apex, roundish to acute at the base, 3-veined, 0.5—4 × 0.5—3.5 cm, thinly pilose on both surfaces, densely covered with dot-like cystoliths above. Stipules minute. Perianth of male flowers red, hirtellous; stamens white. Bracts of the pistillate flowers ovate, 3—4 mm long, entire; perianth green; stigmas white. Achene shining, about 1.5 mm long.

West Indies and continental tropical America from Yucatan to Colombia.

Rocky places.

SABA: from Hellsgate to Sulphur mines (Boldingh 1669, st. July).