

BASELLACEAE

by

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Perennial, glabrous, herbaceous vines with slender or stout and fleshy stems, often with a rhizome or tuberous roots. Leaves alternate, entire, often fleshy, sessile or petiolate. Stipules wanting. Inflorescence consisting of spikes, panicles or clusters, the flowers sessile or short-pedicellate. Bracts small; bracteoles 2 or 4, forming a calyx-like receptacle, sometimes accrescent; the upper pair often tepaloid. Flowers actinomorphic, hermaphrodite or perhaps sometimes unisexual. Tepals 5, connate at the base in a shorter or longer tube, imbricate. Stamens 5, epitepalous; anthers 4-celled, dorsifixed, with longitudinal dehiscence. Ovary superior, unilocular; styles 3, free or united; stigmas 3 or 1. Ovule 1, basal, campylotropous. Fruit dry or baccate, surrounded and sometimes winged by the expanded, persistent perianth. Seeds globular. Embryo spirally twisted or semi-circular to horseshoe-shaped. Endosperm copious; perisperm sparse.

About 20 species in 4 genera, almost confined to the tropics of the New World; some species of *Basella* in Africa and Madagascar.

Key to the genera:

1. Flowers sessile in axillary spikes; filaments straight in bud, inserted near the top of the tepals; fruit enclosed by the fleshy perianth . . . *Basella*
Flowers pedicellate, in simple or branched racemes; filaments curved in bud, inserted at the base of the perianth-lobes; perianth not fleshy in fruit *Anredera*

Basella Linnaeus, Spec. Plant. 272. 1753

Rhizomatous, glabrous herbs or vines, sometimes with thick and succulent stems. Leaves sessile or short petiolate, fleshy. Inflorescence consisting of terminal or axillary spikes, lax or erect, crowded or open; rhachis thick or

thin. Flowers bisexual, sessile or pedicellate. Bracts minute; bracteoles 2, enclosing the base of the flower. Perianth urceolate, only slightly opening at anthesis. Tepals 5, basally united, imbricate, somewhat fleshy. Stamens 5, included; filaments short, straight, inserted near the top of the tepals, broadened near the base; anthers versatile, dorsifixed, extrorse. Ovary sessile, uni-locular, but sometimes partly partitioned; styles 3, slender; stigmas linear. Fruit a dark purple or black baccate drupe enveloped by the globose, enlarged and succulent perianth.

About 5 species, apparently native of Africa; one species widely cultivated in the tropics and escaped and naturalized in the New World.

Basella alba L.

LINNAEUS, Spec. Plant. 272. 1753; ARNOLDO, Gekw. en nutt. pl. Ned. Ant. 105. 1971; ADAMS, Flowering plants of Jamaica 265. 1972; — *Basella rubra* LINNAEUS, Spec. Plant. 272. 1753; BRITTON & WILSON, Sci. Surv. Porto Rico & Virgin Isl. 5: 301. 1924; LEON & ALAIN, Fl. Cuba 2: 151. 1951; ARNOLDO, Gekw. en nutt. pl. Ned. Ant. 25, fig. 161. 1954.

Succulent, glabrous herb, becoming a slender, twining vine; stems up to 10 m long, at first stout, to 2 cm thick, green, afterwards narrowing and becoming slender, elongate and climbing. Leaves sessile to short-petiolate; blade entire, fleshy, ovate to broad-ovate, rounded, obtuse or acute at the apex, cuneate, truncate or cordate at the base, 4—12 × 1.5—9 cm, lateral venation somewhat obscure, c. 5 veins on each side; petioles stout, 1—3 cm long. Inflorescence consisting of axillary or subterminal spikes, up to 15 cm long; rhachis stout or slender depending on the maturity of the plant. Flowers subsessile or pedicellate on juvenile forms, born in the apical portion of the rhachis. Bract scale-like; bracteoles tepaloid, broad-elliptic, acute, shorter than the bract, 1—2 mm long. Tepals white, pink or red, 3—5 mm long, united to above the middle, urceolate to cylindrical, the lobes broad, short, cucullate. Stamens included; filaments short, inserted at the base of the perianth-lobes; anthers cordate. Ovary conical, uni-locular, sometimes partitioned; styles slender, papillose-pilose. Fruit a black or dark purple baccate drupe with red juice, enveloped by the enlarged and succulent perianth.

Probably native of Africa (and tropical S.E. Asia?); cultivated in several parts of the tropics and escaped from cultivation.

ARUBA: Hofje of Fonteijn (Arnoldo 343, fl. Dec.).

Anredera Jussieu, Gen. Plant. 84. 1789

Mostly tender, branched, climbing herbs; annual shoots from a fleshy rhizome. Leaves sessile or petiolate, slightly fleshy. Inflorescence consisting of axillary,

simple or branched racemes or spikes. Flowers bisexual or unisexual, sessile or pedicellate. Bracts persistent or caducous; bracteoles 2 or 4, decussate, sometimes connate at the base; the lower pair small, connate and forming a cuplet or free and caducous; upper pair tepaloid, convex or boat-shaped, often keeled on the back, sometimes winged. Tepals 5, basally connate, forming a hollow concealing, the lobes spreading in anthesis, thin, later more or less thickened and enclosing the fruit. Stamens 5, inserted at the base of the perianth-lobes; filaments filiform, broadened near the base; anthers versatile, basifixed. Ovary uni-locular, sometimes partial partitioned; style 1; stigma 3-lobed or -split to various degree, eventually into 3 free styles each with a globular to oblong or clubshaped, papillose stigma; arms sometimes forked and each branch with a linear stigma. Fruit globose, enclosed by the perianth, sometimes samaroid within the accrescent bracteoles.

About 5—10 species in the New World from Mexico to Peru, Argentine, and Uruguay; Galápagos Islands.

Key to the species:

1. Lower bracteoles free, caducous *A. leptostachys*
 Lower bracteoles connate at the base, forming a persistent cuplet on top
 of the pedicel *A. cordifolia*

Anredera leptostachys (Moq.) Steen.

VAN STEENIS, Flora Malesiana Ser. I, 5: 302. 1957; ADAMS, Flowering plants of Jamaica 266. 1972; SIMMONDS in Fl. Trinidad & Tobago 2: 471. 1964; — *Boussingaultia leptostachys* MOQUIN, in DE CANDOLLE, Prodr. 13(2): 229. 1849; Duss, Fl. phan. Ant. franç. 51. 1897; URBAN, Symb. Ant. 4: 233. 1905; Symb. Ant. 8: 220. 1920; FAWCETT & RENDLE, Fl. Jamaica 3(1): 173, fig. 65. 1914; BRITTON & WILSON, Sci. Surv. Porto Rico & Virgin Isl. 5: 301. 1924; QUESTEL, Fl. Isl. St. Bartholomew 107. 1941; LEON & ALAIN, Fl. Cuba 2: 151. 1951; ARNOLDO, Gekw. en nutt. pl. Ned. Ant. 31. 1954; GOODING *et al.*, Fl. Barbados 153. 1965; ARNOLDO, Gekw. en nutt. pl. Ned. Ant. 105, fig. 168. 1971.

Glabrous vine with slender, pinkish stems; branches up to 8 m long; roots perennial, tuberous. Leaves short-petiolate; blades rather fleshy, ovate to ovate-elliptic or ovate-orbicular, acute to acuminate at the apex, gradually or abruptly narrowed at the base, 2—8(—12) × 1.5—4.5(—9) cm. Inflorescence consisting of lax, slender, axillary, simple or branched racemes, up to 30 cm long. Bracts linear-acuminate, to 1.5 mm long, often surpassing the pedicel in length; lower bracteoles free, caducous, triangular-cuspidate, 0.5—0.6 mm long; the upper bracteoles 1-veined, keeled, tepaloid, 0.6—0.8 mm long. Flowers white, honey-scented, patent in anthesis, c. 3 mm in diam., perianth tube 1/3 mm long, segments oblong to oval, blunt, 1.5 × 0.8—1 mm, shorter than the stamens. Stamens white; filaments strongly reflexed at the apex, spreading in anthesis, subulate; anthers oblong. Ovary broadly ovoid; style white, split to various degrees into 3 stigmatic arms, each with a clubshaped stigma. Fruit not seen.

West Indies; from South Florida and Texas southward through tropical America.

Vernacular name: amor sin fin (Leeward Group).

CURAÇAO: Davelaar (Arnoldo 1747, fl. Dec.); Pietermaai (Arnoldo 1046, fl. March).

ST. EUSTATIUS: without loc. (v. Groll-Meyer s.n., fl.).

Anredera cordifolia (Tenore) Steen.

VAN STEENIS, Flora Malesiana Ser. I, 5: 303. 1957; — *Boussingaultia cordifolia* TENORE, Ann. Sci. Nat. 3(19): 355. 1853, non *B. cordifolia* (MOQ.) VOLK 1893; — *Boussingaultia baselloides* AUCT. non H.B.K.; BOLDINGH, Fl. D.W. Ind. Isl. 1: 67. 1909; Fl. Ned. W. Ind. Eil. 189. 1913.

Glabrous vine; annual shoots up to 6 m long; rhizome thick and hardy. Leaves short-petiolate; blades thin-fleshy, ovate, acute or blunt at the apex, subcordate at the base, $1-11 \times \frac{3}{4}-8$ cm, producing small axillary tubercles. Inflorescence consisting of racemes, simple or split into 2-4 branches, up to 30 cm long, rich-flowered. Bracts narrow, persistent, as long as the pedicels or shorter. Lower bracteoles persistent, connate into a cuplet, broad-triangular, acute, hyaline; upper pair of bracteoles greenish-white, shorter than the perianth, convex in bud, broad-elliptic to suborbicular, c. $1\frac{1}{2}-2 \times 1-1\frac{1}{2}$ mm. Flowers fragrant. Perianth white, nigrescent, patent in anthesis, c. $3\frac{1}{2}$ mm in diam.; segments ovate-oblong to elliptic, blunt, $1\frac{1}{2}-3 \times 1-2$ mm, hardly longer than the stamens. Stamens white; filaments subulate, in bud sharply reflexed at the apex, in anthesis spreading. Style white, split to various degree into 3 stigmatic arms, each with 1 (rarely 2) club-shaped or broad-elliptic stigmas. Fruit not seen.

Native of tropical South America; introduced as an ornamental in many tropical countries.

SABA: Booby Hill (Boldingh 1585, fl.).