BASELLACEAE (C. G. G. J. van Steenis, Leyden)

Perennial, glabrous, herbaceous vines, twining to the right, often with a rhizome or tuberous roots. *Leaves* spiral, sessile or petioled, entire, penninerved, often rather fleshy, exstipulate. *Flowers* bisexual (or unisexual), actinomorphous, in axillary (and/or terminal) spikes, racemes or panicles, each subtended by a small bract. Bracteoles 2 or 4, in the latter case in 2 decussate pairs, below the flower, sometimes accrescent and connate at the base, the upper pair often tepaloid. *Perianth* segments 5, often coloured, connate at the base in a shorter or longer tube, imbricate, persistent, often accrescent. Stamens 5, epitepalous; filaments inserted on the perianth; anthers 2-celled, dorsifixed, dehiscing lengthwise, rarely (in *non*-Mal. *spp.*) with an oblique apical slit. *Ovary* superior, 1-celled; styles simple or 3-armed, or 3 free styles; ovule 1, basal, campylotropous. *Fruit* indehiscent, surrounded by the persistent often fleshy-accrescent calyx (and eventually bracteoles). *Seed* globular; testa membranous; endosperm copious, surrounded by the spirally twisted or semi-circular to horseshoe-shaped embryo.

Distr. Four genera with *c.* 15 *spp.*, almost confined to the warmer parts of the New World, from Texas and the West Indies to Peru, Uruguay, and the Argentine, some *spp.* of *Basella* in E. Africa and Madagascar, in *Malaysia* cultivated and locally naturalizing.

Notes. VOLKENS (1893) in the first edition of the 'Pflanzenfamilien' interpreted what has been here called the upper two bracteoles as a calyx and the perianth as a corolla. I agree with BENTHAM & HOOKER (1880), HUTCHINSON (1926), and ULBRICH (1934) in the second edition of the 'Pflanzenfamilien' in accepting a single perianth (called 'calyx' by H. on account of the epitepalous stamens suggesting apetaly) sustained by one or two pairs of bracteoles.

BENTHAM & HOOKER (Gen. Pl. 3, 1880, 76–77) merged *Basellaceae* with *Chenopodiaceae* and some authors have accepted this opinion or referred them to *Amaranthaceae*. MOROT (Bull. Soc. Bot. Fr. 31, 1884, 104–107) found the anatomy distinctly different from that of *Chenopodiaceae* and accepts them as a distinct family.

EICHLER (Blütendiagr. 2, 1878, 125, 128) merged them with *Portulacaceae* and a close affinity with that family was accepted by VOLKENS (1893) and ULBRICH (1934) in the 'Pflanzenfamilien'.

KEY TO THE GENERA

1. Flowers sessile, fleshy, hardly open at anthesis. Perianth very fleshy, enclosing the fruit. Filaments erect in bud. Embryo spirally twisted . . . . . **1. Basella**
1. Flowers (in Mal. *spp.*) pedicelled, not fleshy, patent at anthesis. Perianth not berry-like. Filaments reflexed in bud. Embryo semi-circular or horseshoe-shaped . . . . . **2. Anredera**

1. BASELLA

LINNÉ, Sp. Pl. (1753) 272; Gen. Pl. ed. 5 (1754) 133.—**Fig. 1.**

Succulent rhizomatous herbs. *Flowers* bisexual, in simple or occasionally branched spikes. Bracts minute, caducous. Bracteoles and urceolate *perianth* connate, fleshy, accrescent, ovoid, very little opening in anthesis, after flowering very fleshy and enclosing the fruit, forming a pseudoberry. Stamens included, filaments very short, inserted near the top of the corolla-tube, erect in bud; stamens dorsifixed, versatile. Perianth segments short, blunt. Styles 3, stigmas linear. Embryo spiral; cotyledons large, thin.

Distr. About 5 *spp.*, apparently native of tropical Africa and Asia, one *sp.* in E. Africa, 3 *spp.* described as endemic in Madagascar (differing by a dry, hard pericarp!), in *Malaysia* only one species of early introduction.

1. Basella alba LINNÉ, Sp. Pl. (1753) 272; BURM. *f.* Fl. Ind. (1768) 76; BLUME, Bijdr. (1825) 537; GRAH. Cat. Bomb. (1839) 170; WIGHT, Ic. 3 (1845) t. 896; MOQ. in DC. Prod. 13, 2 (1849) 222; MIQ. Fl. Ind. Bat. 1, 1 (1858) 1023; Dalz. & GIBS. Bomb. Fl. Suppl. (1861) 73; F.-VILL. Nov. App. (1880) 171; VOLK. in E. & P. Pfl. Fam. 3, 1a (1893) 126; MERR. Govt. Lab. Publ. Philip. *no* 27 (1905) 71; MACBRIDE, Field Mus. Nat. Hist. bot. ser. 13 (1937) 574; HAUMAN, Fl. Cong. Belg. 2 (1951) 129. —*Basella* RHEEDE, Hort. Mal. 7 (1688) 45, t. 24. —*Gandola alba et rubra* RUMPH. Herb. Amb. 5 (1747) 417, t. 154 f. 2.—*B. rubra* LINNÉ, Sp. Pl. (1753) 272; BURM. *f.* Fl. Ind. (1768) 76; LAMK,

Ill. (?1792) t. 215 f. 1; GAERTN. Fruct. 2 (1791) 200, t. 126 f. 8; BLUME, Bijdr. (1825) 537; ROXB. Fl. Ind. ed. CAREY 2 (1832) 104; BLANCO, Fl. Filip. (1837) 215, ed. 2 (1845) 151, ed. 3, 1 (1877) 272, t. 74; MOQ. in DC. Prod. 13, 2 (1849) 222; MIQ. Fl. Ind. Bat. 1, 1 (1858) 1023; F.-VILL. Nov. App. (1880) 171; BISSCH. GREV. Pl. Ned. Ind. (1883) 261; HOOK. *f.* Fl. Br. Ind. 5 (1886) 20; TRIMEN, Fl. Ceyl. 3 (1895) 410; COURCHET, Fl. Gén. I.-C. 5 (1910) 11, f. 2 (1–3); KOORD. Exk. Fl. Java 2 (1912) 209, Atl. f. 951; MERR. Fl. Manila (1912) 200; Int. Rumph. (1917) 218; Sp. Blanc. (1918) 142; KIRTIKAR & BASU, Ind. Med. Pl. 2 (1918) 1070, t. 802; BROWN, Minor Prod. Philip. For. 2 (1921) 278, *ibid.* 3 (1921) 185; GAMBLE, Fl. Madr. (1925) 1185; HEYNE, Nutt. Pl. (1927) 613; OCHSE & BAKH. Ind. Groenten (1931) 75, f. 45; WILSON, N. Am. Fl. 21 (1932) 339; MERR. Comm. Lour. (1935) 152; BURK. Dict. (1935) 307; BACKER, Bekn. Fl. Java (em. ed.) 4a (1942) fam. 64, p. 1; STEEN. Fl. Schol. Indon. (1949) 178; BROWN, Usef. Pl. Philip. 1 (1950) 521–525, f. 219; QUIS. Med. Pl. Philip. (1951) 285.—*B. lucida* LINNÉ, Syst. ed. 10 (1759) 966; BURM. *f.* Fl. Ind. (1768) 76; BLANCO, Fl. Filip. (1837) 216, ed. 2 (1845) 151, ed. 3, 1 (1877) 273; MOQ. in DC. Prod. 13, 2 (1849) 224; MIQ. Fl. Ind. Bat. 1, 1 (1858) 1024; F.-VILL. Nov. App. (1880) 171.—*B. japonica* BURM. *f.* Fl. Ind. (1768) 76, t. 39 f. 4.—*B. cordifolia* LAMK, Enc. 1 (1783) 382; F.-VILL. Nov. App. (1880) 171; MIQ. Fl. Ind. Bat. 1, 1 (1858) 1023; KURZ, Nat. Tijd. Ned. Ind. 27 (1864) 173.—*B. nigra* LOUR. Fl. Coch. (1790) 183; ed. WILLD. (1793) 229.—**Fig. 1.**

Winding or creeping, 2–10 m long, up to 1 cm diam. Stems and petioles red (*var. rubra*), more rarely green (*var. alba*). *Leaves* broad-ovate to oblong, base shallow-cordate to acute, apex blunt to acute, somewhat succulent, green or purplish, 2–12 by 1¼–9 cm; petiole 1–3 cm. *Spikes* incl. the peduncle 3–25 cm, (in Mal. specim.) unbranched, with thick, red or green rhachis, flowers initially close together, gradually more spaced. Bracts ovate-triangular, acute, much shorter than the flower; bracteoles broad-elliptic, blunt, shorter than the bract. Flower with pale base and white, rose or purple, blunt apex, 3–4 mm long. Pseudoberry depressed-globose, shallowly lobed, 4–7 mm high, 5–10 mm wide, shining black, containing a violet juice.

Distr. According to BURKILL probably native in the Old World both in Africa and trop. SE. Asia; in the latter country apparently exhibiting the greatest variability, but exact native country not known with certainty and obviously of ancient introduction in *Malaysia* and China; at present pantropic.

Ecol. Frequently planted by the people up to *c.* 500 m (in Africa up to 2500, in the Andes up to 3000 m), locally naturalized in the settled areas, preferably the drier areas, in grass-wildernesses and thickets, in young secondary forest, both under everwet and seasonal climatic conditions, but always scattered and likely to disappear. The cultivated specimens belong mostly to cultigens. Propagated easily by seed and by cuttings which produce shoots within few weeks; it can be best grown on a low trellis. VAN HELTEN (Teysmannia 1915, 213) gave some indications for its cultivation.

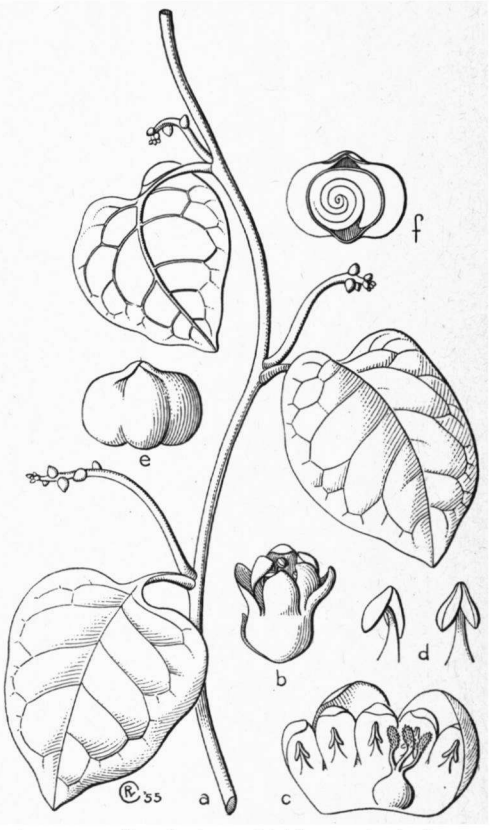

Fig. 1. *Basella alba* L. *a.* Habit, × ½, *b.* flower connate in an urceolate tube, × 4, *c.* opened flower showing the sexual organs, × 5, *d.* anthers, × 10, *e.* pseudoberry, × 2½, *f. ditto*, in section, with the twisted embryo, × 2½ (after a young living specimen in the Leyden Hortus).

Uses. A plant of many uses. An estimated substitute for spinach or purslane and when boiled mucilaginous, used for food as a pot herb and in leafy vegetable stews. This was with *Amaranthus spp.* and *Talinum triangulare* WILLD. one of the most valued vegetables grown in war prison camps in Indo-Malaysia. According to W. H. BROWN it is a good food containing several vitamins and relatively rich in calcium and iron compounds.

Pulped and bruised leaves are used in India and Malaya to poultice sores. They are also a mild laxative. In the Philippines the roots are employed as a rubefacient. The sap is used to anoint any part of the body affected by acne in order to diminish the irritation produced by that malady.

The harmless colouring substance of the berries

(*djingga*, J) is generally in use for colouring eatables, jellies, pastry, and preserves. Dried it is sold as powder (*gintju*, S) in W. Java.

Vern. *Brède d'Angole, épinard d'Amérique*, Fr, *Malabar nightshade, Ceylon spinach*, E, *gĕndola* (the common name), M, *rĕmajong*, Mal. P., *lĕmbajung*, Sum., *gandola, g. bodas, g. beureum*, S, *gĕndjĕrot, gĕndulak, gĕdrĕk, utji-utji*, J, *kandula*, Md, *gĕndola*, Bali, *tatabuwé, poïloö, duju numuno*, N. Cel., *rinutu*, Ambon; Philippines: *libáto*, common name, *grana*, Tag., *alugbáti*, Bis., *ilaibákir*, Iloko, *arogbáti*, Bik., *dundula*, Sulu.

Notes. Several cultigens are known and have been distinguished as different species in former time, but they differ by very minor characters. BAILEY still distinguishes the two species *B. alba* and *B. rubra* on which LINNAEUS based the genus, the first of which should have relatively narrower leaves besides its white flowers.

Through the rule prescribing that the correct epithet should be the one used by the first author who united the synonyms there is no definite certainty about this name. BAILLON (Hist. Pl. 1888) said that there was one species which he accepted as *B. rubra*, but GRAHAM united them as *B. alba* in 1839. According to RHEEDE seeds from Ceylon were successfully grown in 1685 in the Amsterdam Hortus Medicus.

2. ANREDERA

JUSSIEU, Gen. (1789) 84; J. F. GMEL. Syst. Nat. 2 (1791) 454, *nom. conserv. prop.*, *cf.* Taxon 5, 1956, 198.—*Fallopia* ADANS. Fam. Pl. 2 (1763) 277, 557, *nom. rejic. prop.*—*Boussingaultia* H.B.K. Nov. Gen. Sp. 7 (1825) 194, t. 465*bis*; HAUMAN, An. Mus. Nac. Buenos Aires 33 (1925) 347–359.—*Tandonia* MOQ. TAND. in DC. Prod. 13, 2 (1849) 226; *pro sect. sub Boussingaultia* VOLKENS in E. & P. Pfl. Fam. 3, 1a (1891) 128.—**Fig. 2.**

Branched vines with annual shoots from a fleshy rhizome. *Leaves* slightly fleshy, sessile or petioled. *Racemes* or spikes axillary, simple or branched. Bracts persistent or caducous; pedicels (if any) persistent, articulate below the perianth. Apex of the pedicels with two pairs of decussate bracteoles appressed to the perianth; lower pair small, connate and persistent forming a cuplet, or free and caducous; upper pair tepaloid, convex or boat-shaped, often keeled on the back, sometimes narrowly winged, rarely broadly winged. *Flowers* bisexual (or unisexual). *Tepals* connate at the base, forming a hollow concealing the ovary, segments patent in anthesis, thin, later ± thickened and enclosing the fruit. *Filaments* filiform broadened towards the base. *Style* 1 with 3-lobed stigma or split to various degree into arms, eventually into 3 free styles each with a globular to oblong or club-shaped, papillose stigma; arms sometimes forked, each with a linear stigma. *Fruit* globose, enclosed by the perianth; pericarp fleshy or pergamentaceous. *Seed* lens-shaped.

Distr. About 5–10 *spp.* in the warmer parts of America, from Mexico to Peru, the Argentine and Uruguay, also in the Galapagos Isl. (?native).

Notes. As BAILLON rightly remarked (Hist. Pl. 9, 1887, 148) *Boussingaultia* in the strict sense differs from the monotypic *Anredera* only by the conspicuously winged two upper bracteoles. This winged structure is a matter of degree, however, as KUNTH described them in the type species of *Boussingaultia* as '*carinatae concavae dorso inferne membranaceo-subalatae*' and HAUMAN distinguishes (*l.c. in clav.* p. 358) three other species with the same character. It seems therefore unavoidable to merge the two genera into one, *Anredera* having priority.

In subdividing *Anredera* I assume it is not advisable to use the style-character as is done by VOLKENS and HAUMAN in *Boussingaultia*; I have dissected flowers from many specimens of one species and have found the pistil variable as to length of style, length of style-arms, and shape of stigmas, as demonstrated in fig. 2, even in one specimen. I think a fitting character can be found in the nature of the lower pair of bracteoles:

1. *Sect. Anredera.* Lower bracteoles free, caducous. Type species: *A. scandens* (L.) MOQ.. Syn.: *sect. Moquiniella* HAUMAN *l.c.* 355. Other species belonging here *e.g. A. leptostachys* (MOQ.) STEEN. *comb. nov.* (*Boussingaultia leptostachys* MOQ. in DC. Prod. 13, 2, 1849, 229), fig. 2k. Both species dry light green in the herbarium unlike those I have seen of the following section.

2. *Sect. Tandonia* (MOQ.) VOLK. in E. & P. Pfl. Fam. 3, 1a (1891) 128. Lower bracteoles connate at the base forming a persistent cuplet on top of the pedicel. Type species: *A. baselloides* (H.B.K.) BAILL.. Syn.: *Tandonia* MOQ. *l.c.* 226. Other species *e.g. A. cordifolia* (TENORE) STEEN.

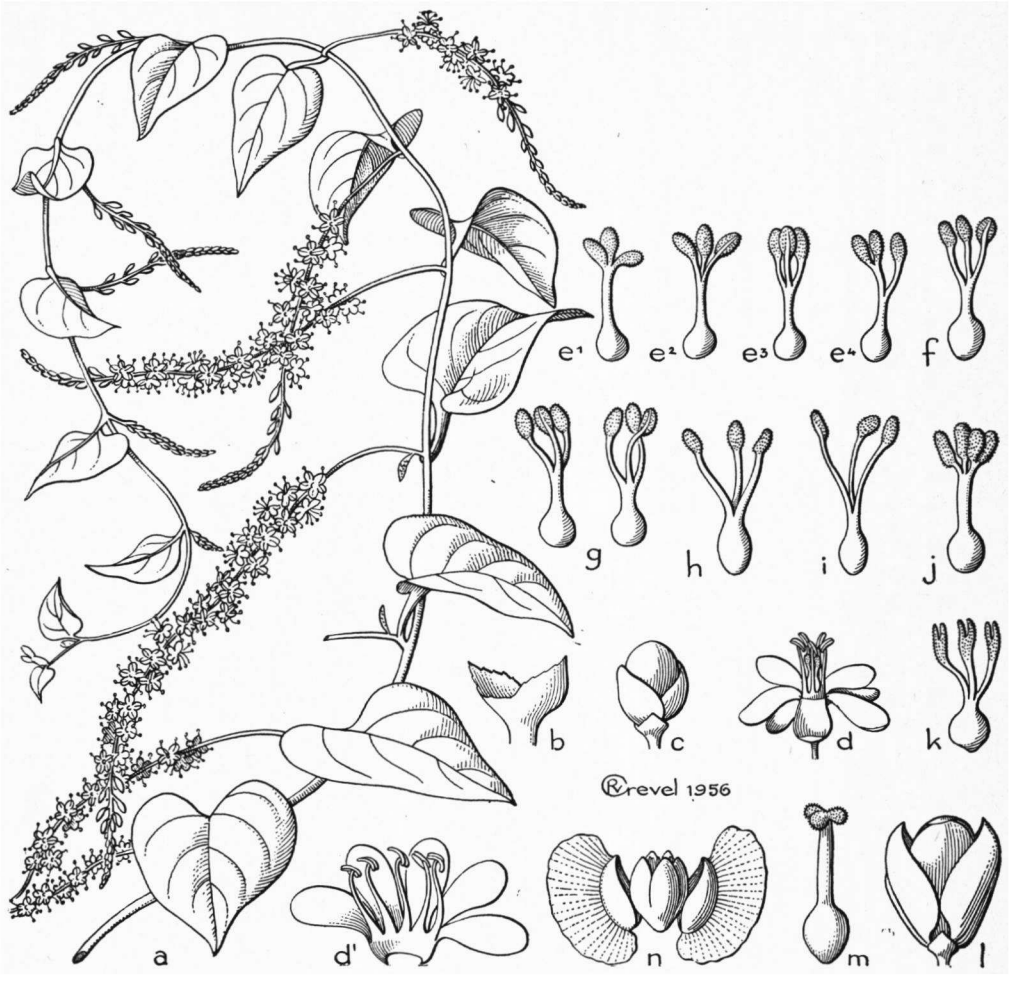

Fig. 2. *Anredera cordifolia* (TENORE) STEEN. *a.* Habit, × 2/3, *b.* cuplet on top of pedicel, formed by conn at lower pair of bracteoles, *c.* bud, *d.* flower, *d'.* perianth and stamens from inside, *e–j.* variation in pistil. —*A. leptostachys* (MOQ.) STEEN. *k.* pistil.—*A. baselloides* (H.B.K.) BAILL. *l.* bud (perianth surrounded by 2 boat-shaped bracteoles with narrowly winged keel and pedicel with apical cuplet of lower pair of bracteoles), *m.* pistil.—*A. scandens* (L.) MOQ. *n.* flower, two winged upper bracteoles (detached) surrounding the perianth (*a.* from Bot. Mag. t. 3620, *b–c.* BACKER 36502, *d–d'.* from J. Bot. 2, t. 18, *e*¹⁻⁴ BACKER 36502, *f.* GLAZIOU 8008, *g.* HERZOG 2016, *h.* GAUDICHAUD 359, *i.* BONPLAND 534, *j.* BOOM 20485, *k.* SINTENIS 2361, *l–m.* coll. HUMBOLDT & BONPLAND 3390, *n.* after VOLKENS).

As a revision of the genus falls without the scope of my task I have intentionally refrained from making other transfers than the above, which I accept as good species. A new key to the species will have to be framed as that of HAUMAN (*l.c.* p. 358) is unsatisfactory, *B. gracilis* being placed in the wrong section and *B. baselloides* belonging close to *B. ramosa.*

KEY TO THE SPECIES

1. Upper bracteoles flattened in flower, orbicular to broad-elliptic, not keeled . . **1. A. cordifolia**
1. Upper bracteoles boat-shaped with a conspicuously winged keel . . . . . **2. A. scandens**

1. Anredera cordifolia (TENORE) STEEN. *comb. nov.*—*Boussingaultia cordifolia* TENORE, Ann. Sc. Nat. III, 19 (1853) 355, *non B. cordifolia* (MOQ.) VOLK. 1893, *quae est B. volkensii* ULBR.; MACBRIDE, Field Mus. Nat. Hist. bot. ser. 13² (1936) 577.—*Boussingaultia gracilis* MIERS, J. Bot. 2 (1864) 161, t. 18; HAUMAN, An. Mus. Nac. Buenos Aires 33 (1925) 355, *incl. f. pseudo-basel-*

loides HAUMAN; BAILEY, Man. Cult. Pl. (1949) 368, incl. *Boussingaultia gracilis var. pseudobaselloides* (HAUM.) BAILEY.—*Boussingaultia baselloides* (*non* H.B.K.) HOOK. Bot. Mag. 64 (1837) t. 3620; MOQ. in DC. Prod. 13, 2 (1849) *p.p. excl. typ.*; BEILLE, Act. Soc. Linn. Bord. 56 (1901) clvi; KOORD. Exk. Fl. Java 2 (1912) 209; WILSON, N. Am. Fl. 21 (1932) 338; BACKER, Bekn. Fl. Java (em. ed.) 4a (1942) fam. 64, p. 2 *et auct. plurim.*—*A. baselloides* BAILL. Hist. Pl. 9 (1887) 147, f. 208–210, excl. *bason. Boussingaultia baselloides* H.B.K. —**Fig. 2a-j.**

Annual shoots up to 6 m; rhizome thick and hardy. *Leaves* short-petioled, ovate, subcordate, acute or blunt, thin-fleshy, 1–11 by 3/4–8 cm, producing small axillary tubercles (BAILEY). Racemes simple or split into 2–4 branches with a thin, rich-flowered rhachis, incl. the peduncle 4–30 cm. Bracts narrow, at most as long as the pedicels, persistent. Pedicels 1 1/2–2 mm, receptacular tip cup-shaped by 2 persistent, broad-triangular, acute, hyaline lower bracteoles. Upper pair of bracteoles greenish-white, shorter than the perianth, convex in bud, later flattening, broad-elliptic to suborbicular, *c.* 1 1/4–2 by 1–1 1/2 mm. *Perianth* fragrant, white, nigrescent, patent in anthesis, *c.* 3 1/2–6 mm diam., segments ovate-oblong to elliptic, blunt, 1 1/3–3 by 1–2 mm, hardly longer than the stamens and pistil. *Stamens* white, filaments in bud sharply reflexed at the apex, in anthesis spreading. *Style* white, but split to various degree into 3 stigmatic arms, each with 1 (rarely 2) club-shaped or broad-elliptic stigmas. *Fruit* unknown.

Distr. Native of tropical S. America, introduced as an ornamental plant in many countries, in *Malaysia* in the plains: Java.

Ecol. According to BAILEY the underground parts are hardy. No fruit has ever been found and it can be propagated vegetatively by small tubercles found in the axils of the leaves. In Guatamala reported up to 2300 m.

Vern. *Madeira vine, mignonette vine,* Am.

Notes. Specimens from Java agree in detail with HOOKER's plate and that of BAILLON; there is no reason to believe that HOOKER's plate is erroneous, as suggested by HAUMAN (*l.c.* p. 350). *Cf.* fig. 2 l–m.

This species represents, as HAUMAN has rightly remarked, the commonly cultivated plant which has been generally confused with *B. baselloides* H.B.K. Nov. Gen. Sp. 7 (1825) 196, t. 645*bis* (type: coll. HUMBOLDT & BONPLAND 3390, P).

For this reason TENORE described it as a new species which apparently contains the oldest epithet.

From the Paris Herbarium I could study the type of *B. baselloides* which I found to agree in all details with KUNTH's plate: the boat-shaped upper bracteoles bear a narrow wing on the lower keel-halves and they slightly exceed the tepals in length. The flowers in the type appear to me female with small barren anthers.

Originally the plant described by HOOKER and that by MIERS appeared to differ in the pistil but the latter's structure is rather variable as is shown in fig. 2 e–j.

2. Anredera scandens (L.) MOQ. in DC. Prod. 13, 2 (1849) 230; F.-VILL. Nov. App. (1880) 172; VIDAL, Phan. Cuming. Philip. (1885) 137; Rev. Pl. Vasc. Filip. (1886) 217; MERR. Fl. Man. (1912) 201; FAWC. & RENDLE, Fl. Jam. 3, 1 (1914) 174, f. 66; MERR. Sp. Blanc. (1918) 142; En. Philip. 2 (1923) 137; MACBRIDE, Field Mus. Nat. Hist. bot. ser. 13 (1937) 578; BACKER, Bekn. Fl. Java (em. ed.) 4a (1942) fam. 64, p. 2; QUIS. Med. Pl. Philip. (1951) 285.—*Polygonum scandens* LINNÉ, Sp. Pl. (1753) 364, *excl. syn.*—*Basella vesicaria* LAMK, Enc. 1 (1785) 382.—*A. spicata* GMEL. Syst. Nat. 2 (1791) 454; PERS. Syn. 1 (1805) 297; MERR. Govt Lab. Publ. Philip. *no* 6 (1904) 24.—*A. vesicaria* GAERTN. Fruct. 3 (1807) 176, t. 213; WILSON, N. Am. Fl. 21 (1932) 337.—*Boussingaultia baselloides* (*non* H.B.K.) F.-VILL. Nov. App. (1880) 172; MERR. Govt Lab. Publ. Philip. *no* 6 (1904) 24.—*Gomphrena volubilis* BLANCO, Fl. Filip. (1837) 199, ed. 2 (1845) 140, ed. 3, 1 (1877) 252.—*A. cumingii* HASSK. Flora 48 (1865) 401. —**Fig. 2n.**

Stems slender, green or purplish, 1–5 m; with large tuberous roots. *Leaves* ovate to ovate-oblong, obtuse to short-acuminate, thin-fleshy, shining, 1 1/2–8 1/2 by 1–6 cm. *Racemes* rich-flowered, usually simple or with 2–3 branches, 5–50 cm, erect or hanging with ascending apex, rhachis rather strong. Bracts ovate-lanceolate, very acute, 3–5 mm, caducous. Pedicels persistent, 1 1/2–2 mm, with thickened apex. Lower pair of bracteoles ovate-triangular, acute, caducous. Upper pair of bracteoles boat-shaped, broadly winged on the back, greenish-white, incl. the wings in anthesis 2–2 1/2 mm, accrescent to 3–3 1/2 mm, with semi-cordate wing-bases, enclosing the corolla and later the fruit. *Perianth* greenish-white, 2 1/4–2 1/2 mm long, thin, hyaline, little opening in anthesis, not accrescent. Styles 3, white, connate at the base. Utricle ovoid to globose. *Seed* not seen.

Distr. Native of tropical America from Texas to Peru, in *Malaysia* an early introduction by the Spaniards and thoroughly naturalized previous to 1837, as BLANCO notes that it was then common in Parañaque, now common about Manila (Laguña, Cavite, Nueva Ecija, Rizal, Pasay, Batañgas), in 1922 imported from Manila to Pasuruan (E. Java) as an ornamental but not yet naturalized; *fl.* Aug.–Nov.. In Malaysia it does not produce seed.

Ecol. A lowland ornamental which apparently needs a dry season for its maintenance, badly growing in the everwet climate of Bogor; in Guatamala reported between 400 and 1300 m.

Uses. In the Tagalog regions the tuberous roots are used as topicals to hasten ripening of boils.

Vern. *Malabató, olibato,* Tag.

Notes. LINNAEUS added a number of early references to his description of *Polygonum scandens* which belong in part to a *Polygonum*; the species was typified by FAWCETT & RENDLE with the type in the Linnean Herbarium.