## ONAGRACEAE

by

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Herbs, rarely shrubs or trees. Leaves alternate or opposite, simple. Stipules usually wanting, when present small and caducous. Flowers usually solitary in the leaf-axils or by reduction of the leaves apparently arranged in spikes or racemes, hermaphrodite, actinomorphic or zygomorphic. Receptacle cylindric, prismatic, obconical or funnel-shaped. Sepals 2—7, free, valvate, persistent or deciduous. Petals 2—7 or wanting, free, contorted or imbricate. Stamens as many as the petals or twice as many and then bi-seriate, rarely only 1 or 2; when bi-seriate the epipetalous smaller and sometimes sterile; filaments free, filiform; anthers linear or oblong, 2-celled, introrse, with longitudinal dehiscence. Disk epigynous. Ovary inferior, 2—7-locular; style simple, filiform to cylindric; stigma lobed or capitate. Ovules numerous, on axile placentas. Fruit a capsule, nut or berry. Seeds small, one to numerous. Embryo straight or nearly so. Endosperm wanting.

About 500 species in 20 genera, cosmopolitan but mostly in temperate regions.

## Ludwigia Linnaeus, Spec. Plant. 118. 1753

Erect or creeping herbs or shrubs, usually growing on wet or marshy places or sometimes floating. Leaves alternate or opposite, entire. Stipules very small, caducous. Flowers mostly solitary in the axils of the leaves, pedicellate or sessile, 4—7-merous, zygomorphic, yellow or whitish. Bracteoles 2, usually small and glandular, sometimes more or less leafy; often inserted on the receptacle. Sepals 4—5(—1), persistent, herbaceous or coriaceous. Petals as many as the sepals, spreading, deciduous. Disk 4—7-lobed, epigynous, adnate to the top of the ovary. Stamens 8—10(—14), those of the epipetalous series shorter than those of the episepalous series; anthers dorsifixed. Ovary 4—5(—7)-locular; style sometimes very short; stigma capitate. Ovules numerous, on irregular, prominent placentas. Capsule variously shaped, crowned by the disk and the petals and often slightly lobed. Seeds numerous with prominent raphe; the latter filiform or sometimes as wide as the seed and then simulating an empty cell, attached to the seed.

About 50 species, natives of America, especially of the tropical part; introduced into other tropical regions.

## Ludwigia erecta (L.) Hara

Hara, Journ. Jap. Bot. 28: 292. 1953; Raven, Reinwardtia 6: 348. 1963; Gooding et al., Fl. Barbados 317. 1965; Adams, Flowering plants of Jamaica 550. 1972; — Jussieua erecta Linnaeus, Spec. Plant. 388. 1753; Duss, Fl. phan. Ant. franç. 292. 1897; Urban, Symb. Ant. 4: 467. 1910; Boldingh, Fl. Ned. W. Ind. Eil. 311. 1913; Fl. D.W. Ind. Isl. 2: 83. 1914; Urban, Symb. Ant. 8: 505. 1921; Britton & Wilson, Sci. Surv. Porto Rico & Virgin Isl. 6: 46. 1925; Fawcett & Rendle, Fl. Jamaica 5: 406. 1926; Williams, Fl. Trinidad & Tobago 1: 416. 1940; Arnoldo, Zakflora 91, 147. 1954; Leon & Alain, Fl. Cuba 4: 66. 1957; Arnoldo, Zakflora 172. 1964. — Jussieua acuminata Swartz, Fl. Ind. Occ. 2: 745. 1800; Grisebach, Fl. Br. W. Ind. Isl. 272. 1860 p.p.; — Jussieua acuminata Sw. var. longifolia Grisebach, Cat. Pl. Cub. 107. 1866; — Jussieua acuminata Sw. var. latifolia Grisebach, Cat. Pl. Cub. 107. 1866.

Erect, freely branching, annual herb, variable with regard to shape and size, up to 1.5 m tall; branches 4-angled from below the decurrent leaf-bases, often becoming somewhat woody. Leaves alternate, petiolate; blade broadly to narrowly lanceolate, acuminate at the apex, cuneate at the base or acute at both ends, 5-12 cm long and 1-3 cm wide, but the uppermost and those of the lateral branches usually much reduced and 2-4 × 0.3-1 cm, subentire, with 16-25 more or less prominent veins on each side of the midvein, submarginal veins present, glabrous but the veins sometimes scabrellous on the lower surface, the margins ciliate or scabrellous; petioles up to 2 cm long. Stipules linear, 1 mm long. Flowers solitary in the axils of the uppermost leaves, subsessile or short-pedicellate, apiculate in the bud. Bracteoles scale-like to linear-lanceolate, up to 1 mm long, inserted at the basal portion of the receptacle. Sepals 4, lanceolate to ovate-lanceolate, acuminate, 3-4(-5) mm long and 1-2 mm wide. Petals obovate to elliptic, obtuse,  $4-5 \times 1.3-3$  mm. Stamens: episepalous ones with 2-2.5 mm long filaments and 0.7 mm long, oblong anthers, the epipetalous ones with 1.5 mm long filaments and 0.7 mm long anthers. Disk depressed, subglabrous or pilose. Receptacle 4-angled, glabrous, about 7.5 mm long. Style cylindric, 1-1.5 mm long; stigma capitate, of 4 connate lobes, about 1 mm thick. Capsule 4-angled, oblong-linear, 1-1.5(-2) cm long and 3 mm wide, puberulent, splitting. Seeds in several rows, ovoid, 0.5 mm long, yellowbrown.

West Indies, Florida, and continental tropical America from Mexico south to Peru and Paraguay; also in the tropics of the Old World and there probably introduced.

In wet or marshy places.

Vernacular name: chananá (Leeward Group).

ARUBA: behind a dam near Hooiberg (Arnoldo 2179, fr. Ap.).

Bonaire: behind a dam, west of Jatoe Bacoe (Stoffers 656, fl. Nov.; 634, fl. Nov.); Sabana (Arnoldo 429, fr. Feb.); calcareous plateau near Rooi Samboe (Boldingh 7337, fl. Feb.).

CURAÇAO: Knip Plantation (Arnoldo 2158, fr. Jan.).