

76. RICHARDIA Linnaeus, Sp. Pl. 1: 330. 1753.

墨苜蓿属 mo mu xu shu

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Ricardia Adanson; *Richardsonia* Kunth.

Herbs, annual or perennial, unarmed. Raphides present. Leaves opposite, without domatia; stipules persistent, interpetiolar and fused to petioles or leaf bases, truncate to rounded, setose. Inflorescences terminal, capitate, several to many flowered, pedunculate and enclosed by paired leaflike bracts (or sessile with involucreal leaves in other morphological interpretations), bracteate. Flowers sessile, bisexual, monomorphic. Calyx with ovary portion turbinate to globose, limb deeply 4–8-lobed. Corolla white or pink, funnel-form, inside glabrous or pubescent at throat; lobes 4–6, valvate in bud. Stamens 3, 4, or 6, inserted in corolla throat, exerted; filaments developed; anthers dorsifixed near middle. Ovary 3- or 4-celled, ovules 1 in each cell, axile and attached at middle of septum; stigmas 3 or 4, linear or spatulate, exerted. Fruit schizocarpous, subglobose to obovoid or tricocous, dry, bony, with calyx limb deciduous; mericarps 3 or 4, indehiscent, 1-celled with 1 seed, ellipsoid to angled, usually papillose to muricate on dorsal surface (i.e., abaxially) and with 1 or more grooves and sometimes papillose to muricate on ventral surface (i.e., adaxially); seeds medium-sized, ellipsoid to plano-convex; endosperm corneous; cotyledon leaflike; radicle cylindrical, hypogeous.

Fifteen species: widespread in the Antilles and North and South America, three species naturalized in the Old World tropics; two species (both introduced) in China.

As noted by Chaw and Peng (J. Taiwan Mus. 40: 71–83. 1987), Asian collections of *Richardia* have long been confused in herb. with various other weedy Rubiaceae. *Richardia* was studied in detail by Lewis and Oliver (Brittonia 26: 271–301. 1974). The synonymous name *Richardsonia* has frequently been used for this genus, including in older references about invasive weeds. H. S. Lo (in FRPS 71(2): 203. 1999) described the flowers as sometimes polygamo-dioecious, but the origin of this description is unknown. Lewis and Oliver did not report this condition, although they did mention that the plants frequently have both chasmogamous and cleistogamous flowers. H. S. Lo also described the anthers as dorsifixed near the base, but other authors have all considered them to be dorsifixed near the middle, which agrees with specimens studied.

Richardia stellaris (Chamisso & Schlechtendal) Steudel is naturalized in Australia and perhaps may be expected in China; it can be recognized by its narrowly triangular to narrowly elliptic, sharply acute leaves.

- 1a. Mature mericarps somewhat dorsiventrally flattened, with 2 broad parallel depressions along length of inner (i.e., adaxial) face 1. *R. brasiliensis*
1b. Mature mericarps triangular to somewhat rounded, with 1 narrow groove along length of inner (i.e., adaxial) face 2. *R. scabra*

1. *Richardia brasiliensis* Gomes, Mem. Ipecacuanha Brasil, 31. 1801.

巴西墨苜蓿 ba xi mo mu xu

Herbs, annual, decumbent or suberect, to 80 cm or longer; stems flattened to subterete, hispidulous or scaberulous and hirsute. Petiole 5–10 mm, hispidulous to pilosulous; leaf blade drying membranous to thickly papery, ovate, elliptic, or lanceolate, 1–5 × 0.5–3.5 cm, both surfaces scaberulous to glabrescent, base acute to cuneate, apex acute to obtuse; stipule sheaths 1–3 mm, pilose to pilosulous, with 3–11 setae 2–4 mm. Inflorescences ca. 1 cm in diam. (not including leaflike bracts or subtending leaves). Calyx with ovary portion obovoid, 1–1.5 mm, densely papillose or hispidulous to smooth; lobes 6, lanceolate or narrowly lanceolate, 1.5–3.5 mm, glabrescent, margins ciliate, apex acute. Corolla white, glabrous inside and outside; tube 3–8 mm; lobes 6, 1–3 mm. Fruit with mericarps 3, ellipsoid to obovoid, laterally somewhat dorsiventrally flattened, 2–3 mm, dorsally papillose to subsmooth, ventrally with 2 broad parallel grooves along length of face. Fl. and fr. Feb–Sep.

Wastelands; ca. 300 m. Naturalized in Guangdong and Taiwan [native to South America; adventive and naturalized occasionally throughout Old World tropics].

This species was reported as naturalized in Taiwan by Ou (Bull. Exp. Forest Natl. Chung Hsing Univ. 8: 11–30. 1987, article not seen,

cited by Wu et al., Taiwania 49: 16–31. 2004) and later by Wu et al. (loc. cit.) but not by other contemporaneous authors (e.g., Chaw & Peng, J. Taiwan Mus. 40: 71–83. 1987). It was not cited at all by H. Y. Liu and T. Y. A. Yang (Fl. Taiwan, ed. 2, 4: 245–340. 1998).

2. *Richardia scabra* Linnaeus, Sp. Pl. 1: 330. 1753.

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Richardia pilosa Ruiz & Pavon; *Richardsonia scabra* (Linnaeus) A. Saint-Hilaire.

Herbs, annual, decumbent or suberect, to 80 cm or longer; stems flattened to subterete, hirsute. Petiole 5–10 mm, hirsute to glabrescent; leaf blade drying membranous to thickly papery, ovate, elliptic, or lanceolate, 1–5 × 0.5–3.5 cm, both surfaces scabrous to glabrescent, base acute to cuneate, apex acute to obtuse; stipule sheaths 1–4 mm, pilose to pilosulous, with 3–15 setae 2–5 mm. Inflorescences ca. 1 cm in diam. (not including leaflike bracts or subtending leaves). Calyx with ovary portion obovoid, 1–1.5 mm, papillose to hispidulous; lobes 6, lanceolate or narrowly lanceolate, 1.5–3.5 mm, glabrescent, margins ciliate, apex acute. Corolla white, glabrous inside and outside; tube 2–8 mm; lobes 6, triangular, 1–3 mm. Fruit with mericarps 3, ellipsoid to obovoid, in cross-section triangular to somewhat rounded, 2–3.5 mm, dorsally densely papillose to hispidulous, ventrally with 1 narrow groove along length of face. Fl. and fr. Feb–Nov.

Wastelands; sea level to 200 m. Naturalized in Guangdong, Hai-

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nan, and Taiwan [native to the Antilles and North and South America; adventive and naturalized occasionally throughout Old World tropics].

H. S. Lo (in FRPS 71(2): 203. 1999) noted that this species was introduced to China in the 1980s.

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