

13. MALVAVISCUS Fabricius, Enum. 155. 1759.

悬铃花属 *xuan ling hua shu*

Shrubs or small trees, sometimes scandent, pubescent or glabrous. Leaves simple; stipules subulate, caducous; leaf blade elliptic or ovate, entire or 3–5-lobed, base truncate or cordate, margin crenate to dentate; foliar nectaries lacking. Flowers solitary, axillary, or sometimes in terminal cymelike clusters. Epicalyx lobes 5–10(–12), linear, lanceolate, or spatulate. Calyx campanulate or tubular, 5-lobed. Corolla tubular; petals 5, red or crimson-red, bases auriculate, remaining adpressed to staminal column. Filament tube longer than corolla, apex 5-toothed; anthers below teeth, on outside of staminal column only. Ovary 5-loculed; ovules 1 per locule; style branches 10; stigmas capitate. Fruit a fleshy schizocarp, usually red (sometimes white), broader than long, ultimately drying and separating into mericarps; mericarps 5, indehiscent. Seeds 1 per carpel.

About five species: native to tropical America, but several now widely cultivated; two species (both introduced) in China.

The genus is highly variable morphologically, with many populational forms that intergrade. This variation has led to widely differing opinions as to the number of species and subspecific taxa. The classification adopted here is a conservative one and follows the revision of Turner and Mendenhall (Ann. Missouri Bot. Gard. 80: 439–457. 1993).

- 1a. Leaf blade broadly cordate to ovate-cordate, often 3-lobed, basal veins 5; petiole 2–5 cm; flowers erect, ca. 2.5 cm; pedicel 3–4 mm 1. *M. arboreus*
1b. Leaf blade lanceolate to narrowly ovate, basal veins 3; petiole 1–2 cm; flowers pendulous, ca. 5 cm; pedicel ca. 15 mm 2. *M. penduliflorus*

1. *Malvaviscus arboreus* Cavanilles, Diss. 3: 131. 1787.

小悬铃花 *xiao xuan ling hua*

Hibiscus malvaviscus Linnaeus, Sp. Pl. 2: 694. 1753; *Achania malvaviscus* (Linnaeus) Swartz; *H. coccineus* Walter, nom. illeg. superfl.; *Malvaviscus coccineus* Medikus, nom. illeg. superfl.

Shrubs ca. 1 m tall. Branchlets sparsely villous to glabrate, rarely glabrous. Stipule filiform, ca. 4 mm, usually caducous; petiole 2–5 cm, puberulent; leaf blade broadly cordate to ovate-cordate, usually 3-lobed, sometimes entire, 6–12 × 2.5–10 cm, nearly glabrous or stellate pilose on both surfaces, basal veins 3 or 5, base broadly cuneate to nearly rounded or cordate, margin crenate, sometimes irregularly so, apex acuminate. Flowers solitary, axillary, pendulous, tube-shaped, slightly expanding only at top, 2.3–5 cm. Pedicel 3–15 mm, villous or puberulent. Epicalyx lobes spatulate, 8–15 mm, connate at base, hairy. Calyx campanulate, ca. 1 cm in diam., lobes 5, slightly longer or shorter than bracteoles, hirsute. Petals 5, scarlet-red, 2.5–5 cm. Staminal column 5–7 cm, exceeding corolla tube. Style branches 10. Ripe fruit bright red, usually 3- or 4-seeded.

Cultivated. Fujian (Xiamen), S Guangdong (Guangzhou), S Yunnan [native to Central and North America (SE United States); now widely planted in tropical and warm temperate regions, sometimes naturalized].

Chinese material is almost certainly to be referred to *Malvaviscus arboreus* var. *arboreus*. *Malvaviscus arboreus* var. *drummondii* (Torrey

& A. Gray) Schery, the name used by Feng (in FRPS 49(2): 50. 1984), is rarely cultivated. It differs from var. *arboreus* by the leaf blades being uniformly 3-lobed, with an obtuse (not acute) apex and strongly cordate (not truncate or cordate) base, and by the stem and petiole being diffusely pubescent with overlapping stellate hairs that form a velvety vestiture (not variously pubescent to glabrate).

2. *Malvaviscus penduliflorus* Candolle, Prodr. 1: 445. 1824.

垂花悬铃花 *chui hua xuan ling hua*

Malvaviscus arboreus Cavanilles subsp. *penduliflorus* (Candolle) Hadač; *M. arboreus* var. *penduliflorus* (Candolle) Schery.

Shrubs, to 2 m tall. Branchlets villous (hairs recurved) to glabrate. Stipule filiform, ca. 4 mm, caducous; petiole 1–2 cm, villous; leaf blade lanceolate to narrowly ovate, 6–12 × 2.5–6 cm, both surfaces nearly glabrous or stellate pilose, basal veins 3, base broadly cuneate to nearly rounded, margin crenate-serate. Flowers solitary, axillary, pendulous, tubular, slightly expanded apically only, ca. 5 cm. Pedicel ca. 15 mm, villous. Epicalyx lobes ca. 8, spatulate, 1–1.5 cm, margins ciliate. Calyx slightly longer than epicalyx, hirsute. Petals red. Staminal column ca. 7 cm, exserted. Fruit unknown.

Cultivated. S Guangdong (Guangzhou), Taiwan, S Yunnan [cultivated in Bhutan, India, Indonesia, Myanmar, Nepal, Pakistan, Philippines, Sri Lanka, Thailand; Africa (Egypt, Tanzania), Americas, Pacific islands; origin unknown but probably Mexico].

This very widely cultivated species is not known to occur in the wild. It rarely sets fruit.

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