

3. KALANCHOE Adanson, Fam. Pl. 2: 248. 1763.伽蓝菜属 *jia lan cai shu*Fu Kunjun (傅坤俊 *Fu Kun-tsun*); Michael G. Gilbert; Hideaki Ohba

Herbs sometimes biennial, subshrubs, or shrubs. Roots usually fibrous. Leaves opposite, petiolate or sessile, usually amplexicaul; leaf blade margin entire, dentate, crenate, or leaves pinnate. Inflorescences terminal, cymose, sometimes also with subterminal cymes and thus paniculate, many flowered; bracts small. Flowers bisexual, erect, 4-merous. Sepals free or basally subconnate, triangular to lanceolate, usually shorter than corolla tube. Corolla yellow (or white, red, pink, or orange), salverform; tube subquadrangular or basally inflated and urn-shaped, base slightly narrowed; lobes longer than tube. Stamens 2 × as many as petals, inserted near middle of corolla tube; filaments unequal in length, usually very short. Nectar scales linear to suborbicular. Carpels erect. Styles short or long. Follicles many seeded. Seeds ellipsoid.

About 125 species: Africa, Asia; four species (two endemic) in China.

- 1a. Leaves pinnately lobed 4. *K. ceratophylla*
 1b. Leaves simple.
 2a. Plants 5–8 cm tall; leaf blade 1–1.8 cm 3. *K. garambiensis*
 2b. Plants over 40 cm tall; leaf blade 5–11.3 cm.
 3a. Leaf blade spatulate-oblong, base attenuate 1. *K. integra*
 3b. Leaf blade triangular to broadly ovate, base truncate to broadly cuneate 2. *K. tashiroi*

1. *Kalanchoe integra* (Medikus) Kuntze, Revis. Gen. Pl. 1: 229. 1891.

匙叶伽蓝菜 *chi ye jia lan cai*

Cotyledon integra Medikus, Hist. & Commentat. Acad. Elect. Sci. Theod.-Palat. 3: 200. 1775; *C. spathulata* (de Candolle) Poirlet; *Kalanchoe spathulata* de Candolle; *K. yunnanensis* Gagnepain.

Herbs perennial, 40–120 cm tall, glabrous. Leaves subsessile, amplexicaul; leaf blade spatulate-oblong, 5–7 × 1.5–3.5 cm, base attenuate, margin irregularly lobed to rarely subentire, apex obtuse. Inflorescences cymose, ca. 10 cm, elongated in fruit; bracts linear. Sepals linear-ovate to narrowly triangular, apex acuminate. Corolla yellow, 1.5–2 cm; lobes acuminate at apex. Stamens inserted at corolla throat; filaments short. Nectar scales linear, ca. 3 mm. Fl. May–Aug.

Fujian, Guangdong, Taiwan, Xizang, Yunnan [Bhutan, Cambodia, India, Indonesia, Kashmir, Laos, Malaysia, Nepal, Philippines, Sikkim, Thailand, Vietnam; SW Asia].

2. *Kalanchoe tashiroi* Yamamoto, Icon. Pl. Formos. Suppl. 2: 25. 1926.

台东伽蓝菜 *tai dong jia lan cai*

Plants suffrutescent, glabrous. Petiole ca. 2 mm; leaf blade triangular to broadly ovate, 5.3–11.3 × 2.5–6.5 cm, base truncate to broadly cuneate, margin irregularly crenate, apex triangularly obtuse. Inflorescences paniculiform cymose; pedicels ca. 1 mm. Sepals linear-lanceolate, ca. 8 × 3 mm. Corolla yellow; tube urn-shaped, ca. 1 × 0.2–0.6 cm; lobes broadly elliptic, ca. 7 × 5 mm, apex abruptly acute. Stamens inserted at corolla throat; filaments ca. 1.2 cm. Nectar scales linear, ca. 4 × 0.5 mm. Carpels lanceolate, ca. 1.2 cm. Styles short. Follicles many seeded. Seeds oblong, finely rugose. Fl. Dec.

• SE Taiwan (Taidong Xian).

The division between this species and *Kalanchoe integra* is ill defined.

3. *Kalanchoe garambiensis* Kudo, J. Soc. Trop. Agric. 2: 235. 1930.

台南伽蓝菜 *tai nan jia lan cai*

Herbs 5–8 cm tall, glabrous. Root stout, sometimes branched. Leaves petiolate; leaf blade spatulate, 1–1.8 × 0.3–0.7 cm, base tapered, margin entire, apex obtuse to shortly acute. Inflorescences laxly corymbiform, cymose, 3–10-flowered. Sepals ovate-oblong, ca. 5 mm, glandular, apex acute. Corolla yellow; tube slender, ca. 2 cm, base urceolate; lobes broadly ovate, apex obtuse, subconcave, or acute. Fl. Apr, fr. Aug.

• Among rocks. S Taiwan.

This species could be regarded as a very depauperate form of *Kalanchoe integra*.

4. *Kalanchoe ceratophylla* Haworth, Rev. Pl. Succ. 23. 1821.

伽蓝菜 *jia lan cai*

Kalanchoe gracilis Hance; *K. macrosepala* Hance; *K. takeoi* Hayata.

Herbs perennial, 20–100 cm tall. Leaves at middle of stem pinnately lobed; petiole 2.5–4 cm; leaf blade 8–15 cm; leaflets linear to linear-lanceolate, margin shallowly serrate. Inflorescences paniculiform cymose, 10–30 cm; bracts linear. Sepals lanceolate, 4–10 mm, apex acute. Corolla yellow; tube ca. 1.5 cm, basally dilated; lobes 5–6 mm. Nectar scales linear, ca. 3 mm. Carpels lanceolate, 5–6 mm. Styles 2–4 mm. Fl. Mar.

Fujian, Guangdong, Guangxi, Taiwan, Yunnan [India, SE Asia].

The record of *Kalanchoe laciniata* (Linnaeus) de Candolle in FRPS is based on misidentified plants of *K. ceratophylla*. True *K. laciniata* differs in having leaves irregularly and more shallowly lobed (vs. regularly and deeply lobed, almost to pinnately compound).

This species is cultivated as an ornamental and the whole plant is used medicinally.

