

19. CARDIOCRINUM (Endlicher) Lindley, Veg. Kingd. 205. 1846.

大百合属 da bai he shu

Liang Songyun (梁松筠 Liang Song-jun); Minoru N. Tamura

Lilium [unranked] *Cardiocrinum* Endlicher, Gen. Pl. 141. 1836.

Herbs perennial, bulbiferous. Bulb formed by swollen base of usually deciduous basal leaves; bulbels several, ovoid, covered with tunics. Stem very tall, stout, glabrous. Leaves basal and cauline, petiolate, usually ovate-cordate, reticulate veined. Inflorescence a terminal raceme, several to many flowered; bracts persistent or caducous. Flowers bisexual, tubular-funnelform, large; pedicel rather short. Tepals 6, free, ± connivent. Stamens 6, inserted at base of tepals; filaments flat; anthers dorsifixed, versatile, narrowly ellipsoid. Ovary cylindrical, 3-loculed; ovules many per locule. Style elongate; stigma slightly 3-lobed. Fruit a loculicidal capsule. Seeds reddish brown, flat, narrowly winged all round.

Three species: Bhutan, China, India, Japan, Myanmar, Nepal, Sikkim; two species (one endemic) in China.

- 1a. Raceme 10–16-flowered; bracts caducous 1. *C. giganteum*
- 1b. Raceme 3–5-flowered; bracts persistent 2. *C. cathayanum*

1. *Cardiocrinum giganteum* (Wallich) Makino, Bot. Mag. (Tokyo) 27: 125. 1913.

大百合 da bai he

Bulbels 3.5–4 × 1.2–2 cm. Stem erect, green or dark green, 1–3 m × 3–5 cm, hollow. Leaves on proximal 1/2 of stem larger, those on distal 1/2 much smaller, sometimes bractlike; petiole 15–20 cm; leaf blade ovate-cordate, 15–20 × 12–15 cm. Raceme 10–16-flowered; bracts caducous. Tepals white or tinged with green, streaked with purple or purple-red adaxially, linear-oblongate, 12–15 × 1.5–2 cm, apex obtuse. Stamens 6.5–7.5 cm; filaments slightly widened toward base; anthers ca. 8 × 2 mm. Ovary 2.5–3 cm × 4–5 mm. Style 5–6 cm. Capsule subglobose, 3.5–4 cm in diam.; apex beaked. Seeds ovate-deltoid, 4–5 × 2–3 mm. Fl. Jun–Jul, fr. Sep–Oct.

Forests, hillsides; 1200–3600 m. Gansu, Guangdong, Guangxi, Guizhou, Henan, Hubei, Hunan, Shaanxi, Sichuan, S Xizang, Yunnan [Bhutan, NE India, Myanmar, Nepal, Sikkim].

- 1a. Stem green, 1.5–3 m; tepals adaxially streaked with purple, abaxially greenish 1a. var. *giganteum*
- 1b. Stem dark green, 1–2 m; tepals adaxially streaked with purple-red, abaxially white 1b. var. *yunnanense*

1a. *Cardiocrinum giganteum* var. *giganteum*

大百合(原变种) da bai he (yuan bian zhong)

Lilium giganteum Wallich, Tent. Fl. Nepal. 21. 1824.

Stem green, 1.5–3 m. Tepals adaxially streaked with purple, abaxially greenish. $2n = 24^*$.

Forests, hillsides; 2300–2900 m. S Xizang [Bhutan, NE India, Myanmar, Nepal, Sikkim].

1b. *Cardiocrinum giganteum* var. *yunnanense* (Leichtlin ex Elwes) Stearn, Gard. Chron., ser. 3, 124: 4. 1948.

云南大百合 yun nan da bai he

Lilium giganteum Wallich var. *yunnanense* Leichtlin ex Elwes, Gard. Chron., ser. 3, 60: 49. 1916; *L. mirabile* Franchet.

Stem dark green, 1–2 m. Tepals adaxially streaked with purple-red, abaxially white. $2n = 24^*$.

Forests; 1200–3600 m. Gansu, Guangdong, Guangxi; Guizhou, Henan, Hubei, Hunan, Shaanxi, Sichuan, Yunnan [Myanmar].

2. *Cardiocrinum cathayanum* (E. H. Wilson) Stearn, Gard. Chron., ser. 3, 124: 4. 1948.

荞麦叶大百合 qiao mai ye da bai he

Lilium cathayanum E. H. Wilson, Lilies East. Asia, 99. 1925.

Bulbels ca. 2.5 × 1.2–1.5 cm. Stem erect, 0.5–1.5 m × 2–3 cm, hollow. Leaves absent in proximal part of stem except basal ones, crowded in middle part, laxly spirally alternate in distal part; petiole 6–20 cm; leaf blade ovate to ovate-cordate, 10–22 × 6–12 cm. Raceme 3–5-flowered; bracts oblong, 4–5.5 × ca. 1.6 cm, persistent. Tepals white or greenish, purple streaked adaxially, linear-oblongate, 13–15 × 1.5–2 cm. Stamens 8–10 cm, ca. 2/3 as long as tepals; anthers 8–9 mm. Ovary 3–3.5 cm × 5–7 mm. Style 6–6.5 cm. Capsule subglobose, 4–5 × 3–3.5 cm. Seeds 4.5–2.5 mm, reddish brownish winged all round. Fl. Jul–Aug, fr. Aug–Sep. $2n = 24^*$.

• Moist and shady places on forested slopes; 600–2200 m. Anhui, Fujian, Henan, Hubei, Hunan, Jiangsu, Jiangxi, Zhejiang.

