
扁蕾属  bian lei shu

Crossopetalum Roth; Gentiana sect. Crossopetalae Froelich ex Grisebach; Gentiana subgen. Eublephis Rafinesque.

Herbs annual, biennial [or perennial]. Roots slender, fibrous. Stems subquadrangular. Flowers terminal, solitary, 4-merous; flower bud slightly flattened, 4-angled. Calyx tubular-campanulate, with triangular discontinuous intracalycular membranes, 2 outer calyx lobes narrower than and basally overlapping 2 inner lobes. Corolla tubular-campanulate to funnelform, lobes frequently toothed to fringed, plicae absent. Nectaries on corolla tube. Stamens inserted on corolla tube; anthers yellow. Capsules 2-valved, many seeded. Seeds angular-papillate.

Twenty-four species: North America, Asia, Europe; five species in China.

1a. Calyx lobes usually with inner lobe shorter than outer; stem leaf blades linear to narrowly lanceolate.
   2a. Flowers 5–10 cm; corolla lobes 2–3 × 1–1.5 cm; stem leaf margin slightly revolute, not ciliolate ............ 4. G. grandis
   2b. Flowers 2.5–5 cm; corolla lobes 0.6–1.2 × 0.6–0.8 cm; stem leaf margin not revolute, slightly ciliolate ......................................................... 5. G. barbata

1b. Calyx lobes equal or subequal in length; stem leaf blades lanceolate, elliptic-lanceolate, ovate-lanceolate, triangular-lanceolate, elliptic, or oblong.
   3a. Calyx ca. 1/2 as long as corolla; corolla lobes basally laciniate-fringed ........................................ 1. G. paludosa
   3b. Calyx ca. 2/3 as long as corolla; corolla lobes not fringed.
      4a. Corolla yellow; stem leaf blades elliptic to ovate-elliptic, base cuneate ............................................. 2. G. contorta
      4b. Corolla yellow; stem leaf blades oblong, base subamplexicaul ......................................................... 3. G. lutea


1a. Gentianopsis paludosa var. paludosa

Gentiana detonsa Rottboll var. paludosa Munro ex J. D. Hooker, Hooker’s Icon. Pl. 9: t. 857. 1852; G. detonsa var. nana Ling; G. detonsa var. stracheyi C. B. Clarke; Gentianella longistyla Ma.

Stem branched from base. Stem leaf blades elliptic-lanceolate to oblong. Corolla blue, sometimes pale yellow at base.

Beside streams, meadow slopes, forests; 1100–4900 m. Gansu, Hebei, Nei Mongol, Ningxia, Qinghai, Shaanxi, Shanxi, Sichuan, Xizang, Yunnan [Bhutan, India, Nepal, Sikkim].

1b. Gentianopsis paludosa var. ovatodeltoidea (Burkill) Ma


- Meadows on hills, wet places, forests; 1100–3000 m. Gansu, Hebei, W Hubei, Nei Mongol, Qinghai, Shaanxi, Shanxi, Sichuan, NW Yunnan.


Stem branched from base. Stem leaf blades oblong to elliptic-lanceolate. Corolla pale yellow-white to yellow.

- Stream banks, swamps, alpine meadows, forests; 2800–4000

回旋扁蕾 hui xuan bian lei


Annuals 8–35 cm tall. Stems usually dark purple, erect, branched apically. Basal leaves short petiolate; leaf blade spatulate to obovate, 0.5–1.5 cm × 4–7 mm, base narrowed, margin ciliolate, apex rounded, midvein distinct. Stem leaves 2–6 pairs, sessile, elliptic to ovate-elliptic, 0.8–3 cm × 4–10 mm, base cuneate, margin ciliolate, apex obtuse to rounded, midvein distinct. Pedicel erect, (1–)2–3(–8.5) cm. Calyx 2–3 cm; lobes subequale, margin membranous; outer lobes lanceolate, 5–11 mm, apex subacuminate; inner lobes ovate-triangular to triangular, 4–10 mm, apex acute. Corolla blue to dark blue, tubular-funnelform, 2.5–5 cm × 6–10 mm; lobes oblong, 5–13 × to 7 mm, apex rounded and sometimes crenulate, margin not fringed. Filaments to 1.5 cm; anthers ellipsoid, ca. 2 mm. Style short. Capsules cylindric, as long as corolla; gynophore present. Seeds ellipsoid, ca. 1 mm. Fl. and fr. Jul-Oct.

• Gravel slopes; ca. 2300 m. Yunnan (Kunming Shi).


黄花扁蕾 huang hua bian lei


Annuals 10–30 cm tall. Stems usually dark purple, erect, simple or apically branched. Basal leaves short petiolate; leaf blade spatulate to obovate-spatulate, 0.7–1.5 cm × 3–8 mm, base narrowed, apex obtuse to rounded. Stem leaves sessile, oblong, 1.2–4 × 0.3–1 cm, base rounded and subamplexicaul, apex obtuse, midvein distinct. Pedicel erect, to 5 cm, subquadruangular. Calyx 2–2.5 × ca. 1.2 cm; lobes subequal, 6–7 mm, with strong keeled ridges outside; outer lobes triangular-lanceolate to triangular, ca. 5 mm wide, apex acute; inner lobes ovate-triangular, to 7 mm wide, apex obtuse. Corolla pale yellow, broadly tubular, 3–4 × ca. 1 cm; lobes oblong, ca. 1 cm, margin not fringed, apex rounded and crenulate. Nectaries oblong. Filaments flattened, to 1.5 cm; anthers ellipsoid, ca. 3 mm. Style short. Capsules narrowly ellipsoid, as long as corolla; gynophore present. Seeds ellipsoid, ca. 0.5 mm. Fl. and fr. Sep-Oct.

• Gravel slopes; ca. 2300 m. Yunnan (Kunming Shi).


大花扁蕾 da hua bian lei


Annuals or biennials 25–50 cm tall. Stems erect, to 5 mm in diam., usually branched from base. Basal leaves crowded, short petiolate; leaf blade spatulate to elliptic, 0.5–1.5 cm × 5–8 mm, base narrowed, apex obtuse, midvein distinct. Stem leaves 3–6 pairs, sessile, narrowly lanceolate, 4–8 cm × 3–6 mm, margin slightly revolute, apex acut, midvein distinct. Pedicel erect, 5–16 cm, subquadruangular. Calyx narrowly funnelform, 3.5–7 cm; outer lobes linear-lanceolate, 2.5–5 cm, apex caudate; inner lobes triangular-lanceolate, 1.5–2.5 cm, apex acute; all lobes with margin broadly membranous. Corolla blue, sometimes pale yellow basally, funnelform, 5–10 × 1–1.7 cm; lobes elliptic, 2.5 × 1–1.5 cm, apex obtuse and crenulate, margin long lacinate-fringed basally. Nectaries suborbicular. Filaments 1.7–2.1 cm; anthers narrowly ellipsoid, ca. 3 mm. Style linear, 3–5 mm. Capsules as long as corolla; gynophore present. Seeds brown, ellipsoid, ca. 1 mm. Fl. and fr. Jul-Oct.

• Stream and river banks in valleys, hillsides; 2000–4100 m. SW Sichuan, NW Yunnan.


扁蕾 bian lei

Gentiana barbata (Froelich) Kitagawa; Gentianopsis barbata var. stenocalyx Kitagawa.

Annuals or biennials 8–40 cm tall. Stems erect, subterete, striate, branched apically. Basal leaves short petiolate; leaf blade spatulate to oblanceolate, 7–10 × 4–10 mm, base narrowed, apex obtuse, midvein distinct. Stem leaves 3–10 pairs, sessile, linear to narrowly lanceolate, 1.5–8 cm × 3–9 mm, margin slightly ciliolate, apex acuminate, midvein distinct. Pedicel erect, to 15 cm, elongated in fruit, subterete, striate. Outer calyx lobes 7–20 mm; inner calyx lobes 6–12 mm. Corolla tubular-funnelform, 2.5–5 × ca. 1.2 cm; lobes elliptic, 6–12 × 6–8 mm, margin short lacinate-fringed basally, apex rounded, denticulate, and mucronate. Nectaries suborbicular, nodding. Filaments 0.8–1.2 cm; anthers narrowly ellipsoid, ca. 3 mm. Style linear, 1–1.5 mm. Capsules as long as corolla, on a short gynophore. Seeds brown, ellipsoid, ca. 1 mm. Fl. and fr. Jul-Sep.

700–4700 m. Gansu, Guizhou, Hebei, Heilongjiang, Jilin, Liaoning, Nei Mongol, Ningxia, Qinghai, Shaanxi, Shandong, Shanxi, Sichuan, Xinjiang, Xizang, Yunnan [Japan, Kazakhstan, Kyrgyzstan, Mongolia, Russia].

1a. Basal leaves withered at anthesis; calyx slightly shorter to equaling corolla, 6–10 mm in diam.; outer lobes linear-lanceolate, inner lobes ovate-lanceolate ................................. 5a. var. barbata

1b. Basal leaves forming a well-developed rosette at anthesis; calyx ca. 1/2 as long as corolla, 3–4 mm in diam.; all lobes linear-subulate.

2a. Corolla lobes pale blue to blue ....................................................... 5b. var. stenocalyx

2b. Corolla lobes pale yellow ............ 5c. var. albiflavida

5a. Gentianopsis barbata var. barbata

扁蕾 (原变种) bian lei (yuan bian zhong)
Gentiana barbata Froelich, Gentiana 114. 1796; Gentianopsis barbata var. sinensis Ma.

Calyx slightly shorter to equaling corolla, 6–10 mm in diam., outer lobes linear-lanceolate, inner lobes ovate-lanceolate. Corolla pale blue to blue, basally pale yellow.

Beside streams, meadows, scrub, forests; 700–4400 m. Gansu, Guizhou, Hebei, Heilongjiang, Jilin, Liaoning, Nei Mongol, Ningxia, Qinghai, Shaanxi, Shandong, Shanxi, Sichuan, Xinjiang, Yunnan [Japan, Kazakhstan, Kyrgyzstan, Mongolia, Russia].


细萼扁蕾 xi e bian lei

Calyx ca. 1/2 as long as corolla, 3–4 mm in diam., lobes linear-subulate. Corolla pale blue to blue, basally pale yellow.

• River banks, beside streams, shady slopes, forest margins; 3300–4700 m. Qinghai, NW Sichuan, Xizang.


黄白扁蕾 huang bai bian lei

Calyx ca. 1/2 as long as corolla, 3–4 mm in diam., lobes linear-subulate. Corolla pale yellow.

• Swamp meadows, meadow slopes, Juniperus forests; 3200–4100 m. Qinghai.