

### 13. TRIODANIS Rafinesque, New Fl. N. Amer. 4: 67. 1838.

异檐花属 yi yan hua shu

Hong Deyuan (洪德元); Thomas G. Lammers

Herbs, annual. Roots fibrous. Stems erect or ascending, simple or branched below, ribbed. Leaves alternate, sessile, ovate, elliptic, lanceolate, or linear, entire or dentate. Flowers 1–3(–8) in an axillary cyme, sessile or subsessile; cleistogamous flowers in axils of lower leaves; normal flowers in axils of middle to upper leaves. Calyx 3- or 4(–6)-lobed, with lobes shorter in cleistogamous flowers, 5(or 6)-lobed in normal flowers. Corolla blue-purple or pale purple, rarely white, rotate, 5(or 6)-fid nearly to base; lobes lanceolate, apex acute or acuminate. Stamens 5(or 6), free; filaments dilated at base; anthers elongate, longer than filaments. Ovary inferior, (2 or)3-locular; ovules numerous; style upright, but reduced in cleistogamous flowers; stigma (2 or)3-fid, densely puberulent. Capsule subcylindrical or clavate, (2 or)3-poricidal at inferior part. Seeds numerous, globose to broadly ellipsoid, slightly compressed.

Six species: the Americas; one species (introduced) in China.

**1. Triodanis perfoliata** (Linnaeus) Nieuwland, Amer. Midl. Naturalist 3: 192. 1914.

穿叶异檐花 chuan ye yi yan hua

Stems erect or ascending, 15–60 cm tall, simple or branched, ribbed, glabrous or scabrous mostly on ribs. Leaves ovate, suborbicular, or elliptic, sometimes lanceolate toward apex, 0.6–2 cm, glabrous or shortly hispid on veins and margins, base clasping cordate, obtuse, broadly cuneate, or rounded, margin shallowly entire, crenate, serrate, or dentate, apex rounded, obtuse, or acute, sometimes acuminate. Flowers 1–3 in axil, sessile. Hypanthium campanulate, oblong, or obconic; calyx lobes of upper flowers (later ones) 5, rarely 4, rigid, triangular to lanceolate; lower flowers (earlier ones) smaller, with lobes 3 or 4, narrowly triangular, triangular, or lanceolate. Corolla bluish purple or rose-purple, rarely white, rotate, 8–10 mm; earlier flowers rudimentary. Capsule oblong, 4–10 mm, opening by lateral valves. Seeds light brown to brown, smooth. Fl. and fr. Apr–Jul.  $2n = 28, 56$ .

Naturalized on mountain slopes, by streams, among grasses, and in cracks of concrete; 100–1000 m. Anhui, Fujian, Taiwan, Zhejiang [native to North and South America].

- 1a. Leaves ovate to orbicular, base cordate or amplexicaul, margins crenate or dentate; bracts as long as broad; capsule poricidal below middle ..... 1a. subsp. *perfoliata*
- 1b. Leaves ovate to elliptic, base usually rounded, slightly cordate or obtuse, not amplexicaul, margins subentire or shallowly crenate; bracts longer than wide; capsule poricidal above middle .... 1b. subsp. *biflora*

**1a. Triodanis perfoliata** subsp. *perfoliata*

穿叶异檐花(原亚种) chuan ye yi yan hua (yuan ya zhong)

*Campanula perfoliata* Linnaeus, Sp. Pl. 1: 164. 1753; *Dysmicodon perfoliatus* (Linnaeus) Nuttall; *Legousia perfoliata* (Linnaeus) Britton; *Pentagonia perfoliata* (Linnaeus) Kuntze; *Prismatocarpus perfoliatus* (Linnaeus) Sweet; *Specularia perfoliata* (Linnaeus) A. Candolle.

Stems rather stiffly erect, 15–60 cm tall, simple or

branched, sometimes especially on angles with spreading, bristlelike hairs of uneven length. Leaves broadly ovate to suborbicular, 1–2 cm, shortly hispid on veins and margins, base strongly cordate-clasping, margin rather shallowly crenate-dentate or sometimes entire, apex subacute or rounded. Flowers 1–3 in axil, sessile. Calyx lobes of upper flowers (later ones) 5, rarely 4, rigid, triangular-lanceolate, acuminate; lower flowers (earlier ones) smaller, with 3 or 4 shorter calyx lobes. Corolla blue or white, rotate, 8–20 mm wide; corolla on earlier flowers rudimentary. Capsule oblong to narrowly turbinate, 4–6 mm, tardily opening near middle. Seeds lenticular. Fl. and fr. Apr–Jul.  $2n = 56$ .

Naturalized on mountain slopes and by streams; 100–1000 m. Fujian (Chong'an, Jianning) [native to North America].

**1b. Triodanis perfoliata** subsp. *biflora* (Ruiz & Pavon) Lammers, Novon 16: 72. 2006.

异檐花 yi yan hua

*Campanula biflora* Ruiz & Pavon, Fl. Peruv. 2: 55. 1799; *Asyneuma anhuiense* B. A. Shen; *Legousia biflora* (Ruiz & Pavon) Britton; *Pentagonia biflora* (Ruiz & Pavon) Kuntze; *Specularia biflora* (Ruiz & Pavon) Fischer & C. A. Meyer; *Triodanis biflora* (Ruiz & Pavon) Greene; *T. perfoliata* var. *biflora* (Ruiz & Pavon) T. R. Bradley.

Plants glabrous or nearly so throughout except for scabrous angles of stems. Stems simple or branched, slender and often weak, 15–60 cm tall. Leaves ovate to ovate-elliptic or obovate-lanceolate, 6–20 mm, margin entire, or inconspicuously crenate-serrate with very short and broad teeth, base usually rounded, not amplexicaul. Earlier flowers with 3 or 4 ovate to lanceolate calyx lobes; later ones with 4 or 5 longer, lanceolate-subulate calyx lobes. Capsule oblong-cylindric, 6–10 mm, opening by valves close under calyx lobes. Fl. and fr. Apr–Jul.  $2n = 28, 56$ .

Naturalized among grasses and in cracks of concrete; 100–600 m. Anhui (Anqing), Fujian (Jiangle), Taiwan (Xinzhu), Zhejiang (Putuo) [native to North and South America].

Fl. China 19: 552–553. 2011.