

23. TRICYRTIS Wallich, Tent. Fl. Nepal. 61. 1826, nom. cons.

油点草属 you dian cao shu

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Compsoa D. Don, nom. rej.

Herbs perennial, with short or sometimes long and creeping rhizomes. Stems usually erect or ascending, sometimes branched distally. Leaves cauline, alternate, subsessile, usually ± amplexicaul. Inflorescence a thyrse or thyrsoïd, rarely a raceme. Flowers bisexual, solitary, showy. Perianth campanulate or trumpet-shaped. Tepals 6, free, white or yellow with purplish spots, usually recurved or reflexed distally, usually caducous; outer ones saccate or shortly spurred. Stamens 6, inserted at base of tepals; filaments slightly flattened, proximally connivent to form a short tube; anthers dorsifixed, versatile, extrorse. Ovary 3-loculed; ovules many per locule. Style columnar; stigmatic lobes 3, spreading, apically cleft. Fruit a capsule, broadly cylindrical, 3-angled, septicidal. Seeds many, ovate to orbicular, flattened, small.

About 18 species: from the Himalayas to E Asia; nine species (six endemic) in China.

- 1a. Flowers or inflorescences all axillary 7. *T. suzukii*
- 1b. Flowers or inflorescences terminal or sometimes also axillary.
 - 2a. Ovary and capsule densely pubescent 4. *T. lasiocarpa*
 - 2b. Ovary and capsule glabrous or subglabrous.
 - 3a. Stems subglabrous.
 - 4a. Flowers pale yellow with red-purple spots 9. *T. latifolia*
 - 4b. Flowers white or greenish white with purple spots.
 - 5a. Tepals spreading obliquely outward 5. *T. ovatifolia*
 - 5b. Tepals spreading horizontally or at an angle of ca. 45° 8. *T. viridula*
 - 3b. Stems mostly pubescent; leaves not usually ovate, apex acute or acuminate.
 - 6a. Leaves (4–)6–10 cm wide, adaxially hispidulous, proximal leaves rounded or cordate at base.
 - 7a. Tepals reflexed at full anthesis 1. *T. macropoda*
 - 7b. Tepals spreading horizontally or at an angle of ca. 45° 2. *T. pilosa*
 - 6b. Leaves 2.5–4(–5) cm wide, adaxially glabrescent, proximal leaves narrowed and subcuneate at base.
 - 8a. Plants with creeping, long rhizomes; leaves elliptic 6. *T. stolonifera*
 - 8b. Plants without creeping, long rhizomes; leaves oblanceolate to obovate 3. *T. formosana*

1. *Tricyrtis macropoda* Miquel, Verslagen Meded. Afd. Natuurk. Kon. Akad. Wetensch., ser. 2, 2: 86. 1868.

油点草 you dian cao

Stem to 1 m, sparsely or densely hispidulous distally. Leaves ovate-elliptic, oblong, or oblong-lanceolate, (6–)8–16 (–19) × (4–)6–10 cm, hispidulous on both surfaces, base cordate or rounded and amplexicaul, margin hispidulous-ciliate, apex acute or acuminate. Cymes terminal and usually also axillary in distal part of stem, several to many flowered; rachis and pedicels brownish hispidulous; pedicels 1.4–3 cm. Tepals reflexed, greenish white or white, with purple-red spots, ovate-elliptic to lanceolate, 1.5–2 cm × 5–7 mm; outer ones wider than inner ones, basally saccate. Stamens 1.5–2 cm; filaments with purple spots. Ovary glabrous. Stigmatic lobes 1–1.5 cm. Capsule 2–3 cm. Fl. and fr. Jun–Oct. $2n = 26$.

Forests, grassy slopes, rock crevices; 800–2400 m. Anhui, Fujian, Guangdong, Guangxi, Guizhou, Hubei, Hunan, Jiangsu, Jiangxi, ?S Shaanxi (Qin Ling), Zhejiang [Japan].

2. *Tricyrtis pilosa* Wallich, Tent. Fl. Nepal. 62. 1826.

黄花油点草 huang hua you dian cao

Compsoa maculata D. Don; *Corchorus polygonatum* H. Léveillé; *Disporum esquirolii* H. Léveillé; *Tricyrtis maculata*

(D. Don) J. F. Macbride.

Stem 50–90 cm, hispidulous distally. Leaves ovate-oblong to oblong-lanceolate, 8–14 × 6–9 cm, hispidulous on both surfaces, base cordate or rounded and amplexicaul, apex acuminate. Cymes terminal and sometimes also axillary in distal part of stem, laxly several to many flowered; rachis and pedicels hispidulous. Tepals spreading horizontally, at an angle of ca. 45°, or subsascending, greenish white, with black-purple or purple-brown spots, ovate-oblong to lanceolate, 1.2–1.8 cm × 5–6 mm; outer ones slightly wider than inner ones, basally saccate. Stamens subequaling tepals. Ovary glabrous. Capsule 2–3 cm. Fl. and fr. Jul–Sep. $2n = 26^*$.

Forests, hillsides; 300–2300 m. Gansu, Guangxi, Guizhou, Hebei, Henan, Hubei, Hunan, Shaanxi, Sichuan, Yunnan [Bhutan, India, Nepal].

3. *Tricyrtis formosana* Baker, J. Linn. Soc., Bot. 17: 465. 1879.

台湾油点草 tai wan you dian cao

Stem sometimes branched, usually flexuous, 25–80 cm, glabrous or slightly pubescent distally. Leaves oblanceolate or narrowly elliptic-oblanceolate to obovate, 8–13 × 2.5–4.5 cm, adaxially glabrescent, abaxially pubescent particularly along veins, base usually narrowed and subcuneate, margin ciliate, apex acuminate. Cymes terminal and also axillary in distal part

of stem, laxly several flowered; pedicels 1–6 cm, pubescent or glabrous. Flowers trumpet-shaped. Tepals purple-white, with purple spots adaxially, lanceolate, oblanceolate, or oblong, 2–4 cm × 4–11 mm, abaxially usually laxly pubescent; outer ones basally saccate. Stamens usually included. Ovary glabrous. Style subequaling stigmatic lobes. Capsule 2.5–3.5 × 5–6 mm. Fl. and fr. (?Apr–)Oct–Nov.

• Forests, thickets, shaded places, roadsides; near sea level to 3000 m. Taiwan.

- 1a. Stem usually less than 30 cm; inflorescence glandular 3b. var. *glandosa*
1b. Stem 45–80 cm; inflorescence pubescent or glabrous.
2a. Tepals 2–2.5 cm; pedicel pubescent 3a. var. *formosana*
2b. Tepals 3–4 cm; pedicel glabrous 3c. var. *grandiflora*

3a. *Tricyrtis formosana* var. *formosana*

台湾油点草(原变种) tai wan you dian cao (yuan bian zhong)

Stem 45–80 cm. Inflorescence pubescent on rachis and pedicels. Tepals lanceolate or oblanceolate, 2–2.5 cm. $2n = 26^*$.

• Forests, thickets, shaded places; near sea level to 3000 m. Taiwan.

3b. *Tricyrtis formosana* var. *glandosa* (Simizu) Tang S. Liu & S. S. Ying in H. L. Li et al., Fl. Taiwan 5: 79. 1978.

小型油点草 xiao xing you dian cao

Tricyrtis formosana f. *glandosa* Simizu, Bot. Bull. Acad. Sin., n.s., 3: 37. 1962.

Stem less than 30 cm. Inflorescence glandular. $2n = 26^*$.

• 800–1400 m. C and NE Taiwan.

No specimens have been seen by the present authors.

3c. *Tricyrtis formosana* var. *grandiflora* S. S. Ying, Colored Illustr. Fl. Taiwan 3: 619. 1988.

大花油点草 da hua you dian cao

Stem 45–70 cm. Inflorescence glabrous. Tepals oblong to broadly lanceolate, 3–4 cm.

• Roadsides; ca. 1500m. E Taiwan (Hualian Xian).

No specimens have been seen by the present authors.

4. *Tricyrtis lasiocarpa* Matsumura, Bot. Mag. (Tokyo) 11: 79. 1897.

毛果油点草 mao guo you dian cao

Tricyrtis formosana Baker var. *lasiocarpa* (Matsumura) Masamune.

Stem erect or slightly prostrate. Leaves ovate-lanceolate, 7–12 × 2.5–4 cm, glabrous or subglabrous, base sheathed, margin ciliate, apex acuminate. Cymes terminal, laxly several flowered. Flowers trumpet-shaped. Tepals 1.5–2.5 cm, adaxially pubescent. Stamens included; filaments slender. Ovary densely pubescent. Style subequaling stigmatic lobes. Capsule 2.5–3 cm,

densely pubescent. Fl. and fr. Jul–Sep.

• Near sea level to 1600 m. Taiwan.

No specimens have been seen by the present authors.

5. *Tricyrtis ovatifolia* S. S. Ying, Quart. J. Chinese Forest. 6(1): 169. 1972.

卵叶油点草 luan ye you dian cao

Rhizome creeping, thickened, ca. 5 mm thick. Stem erect or ascending, 25–50 cm, glabrous. Leaves ovate, 9–12 × 6.5–8.5 cm, base rounded and slightly amplexicaul, apex acute, caudate. Cymes terminal, 10–15 cm; pedicels 1.5–2.5 cm, pubescent. Tepals white, with red spots, oblanceolate, 2–2.5 cm × 5–8 mm; outer ones basally shortly spurred. Filaments filiform, slightly flattened, 1.5–2.5 cm. Ovary glabrous. Capsule 3–3.5 cm × 5–8 mm. Seeds many, brown, spindle-like, 1–1.5 mm.

• Forests, roadsides; 800–1000 m. S Taiwan (Pingdong Xian).

No specimens have been seen by the present authors.

6. *Tricyrtis stolonifera* Matsumura, Bot. Mag. (Tokyo) 11: 78. 1897.

山油点草 shan you dian cao

Tricyrtis formosana Baker var. *stolonifera* (Matsumura) Masamune.

Rhizome creeping, long. Stem erect, flexuous distally, 40–60 cm, pubescent. Leaves elliptic, 6–12 × 3–4 cm, abaxially ± pubescent, especially along veins, base narrowed, slightly cuneate. Cymes terminal, laxly 3–5-flowered; pedicels 2.5–3 cm, softly pubescent. Flowers trumpet-shaped. Tepals light purple, with purple spots, often whitish yellow at base, ca. 2.2 cm; outer ones subovate; inner ones linear. Stamens subequaling tepals; filaments often with purplish spots, slender. Ovary ca. 1.5 cm, glabrous. Style shorter than stigmatic lobes. Capsule glabrous. Fl. and fr. Jun–Jul. $2n = 24^*$, 26^* .

• Thickets, roadsides. Taiwan.

No specimens have been seen by the present authors.

7. *Tricyrtis suzukii* Masamune, J. Soc. Trop. Agric. 3: 21. 1931.

侧花油点草 ce hua you dian cao

Rhizome creeping, stolon-like. Stem branched, 70–100 cm, glabrous. Leaves lanceolate or ovate-oblong, 5–8 × 1.5–2.5 cm, base deeply cordate, amplexicaul, apex caudate-acuminate. Cymes axillary, laxly several flowered or reduced to a solitary flower; pedicels 3–5 cm, densely hirsute. Tepals white, usually with purple spots, oblong-ovate, 2–2.5 cm, glabrous. Stamens subequaling tepals; filaments slender. Ovary glabrous. Style ca. 5 mm. Capsule 2–2.5 cm. Seeds brown, minute. Fl. and fr. May–Oct.

• Moist and shaded places; 800–1600m. E and N Taiwan.

No specimens have been seen by the present authors.

8. *Tricyrtis viridula* Hir. Takahashi, Acta Phytotax. Geobot. 48: 123. 1997.

绿花油点草 lu hua you dian cao

Rhizome short, stoloniferous. Stem solitary, erect, simple, scarcely flexuous, (20–)40–100 cm, glabrous. Leaves narrowly elliptic, ovate, or sometimes obovate, (7–)10–17 × (3–)4–7 cm, adaxially glabrous except for setose main veins at base, abaxially glabrous or with dispersed setae on main veins, base amplexicaul, ciliate, apex acuminate or cuspidate. Inflorescence terminal or sometimes also axillary in distal part of stem, with 2–4 cymose branches; peduncle and pedicels with both short, conical hairs and long, glandular hairs; peduncle 3–10 cm, with up to 2 bracteoles; pedicels 8–15(–20) mm. Flowers (2 or)3–7(or 8) per cyme. Tepals horizontally spreading in distal 2/3, white in proximal 1/2, greenish white in distal 1/2, with small, purple spots adaxially and a pale orange spot just below spreading point; outer tepals ovate, 1.4–1.7 cm × 4–5 mm, abaxially with slender, glandular hairs, base saccate, conspicuously foveolate, apex acuminate, often with purple spots on sac; inner tepals lanceolate, auriculiform, 1.4–1.7 cm × 3–3.5 mm, glandular hairy on midvein abaxially. Stamens 6; filaments recurved distally, with small, purple spots on proximal 1/2, 1.6–1.8 cm, base papillose; anthers purplish to yellowish, thinly rectangular, ca. 3 mm. Ovary trigonous or narrowly trigonous-pyramidal, 7–8 × 2.5 mm, glabrous. Style 3-fid; branches recurved-spreading, deeply incised, with small, purple spots and glandular protuberances. Capsule trigonous, glabrous, base cuneate, apex acuminate-attenuate. Seeds black-purple, 1.5 × 1–1.5 mm. Fl. and fr. Jun–Oct. $2n = 26^*$.

• Forests, forest margins; 1000–1800 m. Guangxi, Guizhou, Jiangxi, Yunnan, Zhejiang.

9. *Tricyrtis latifolia* Maximowicz, Bull. Acad. Imp. Sci. Saint-Pétersbourg 11: 435. 1867.

宽叶油点草 kuan ye you dian cao

Tricyrtis bakeri Koidzumi; *T. puberula* Nakai & Kitagawa.

Stem 40–100 m, usually glabrous. Leaves obovate to ovate-elliptic, 1–1.5 cm × 4–8 mm, adaxially glabrous, abaxially sparsely to rather densely pubescent, base deeply cordate, amplexicaul, apex acuminate to cuspidate. Cymes terminal and sometimes also axillary in distal part of stem, several to many flowered; rachis and pedicels papillose; pedicel 1.5–3 cm. Tepals obliquely outward spreading, pale yellow, with purple-red spots, obanceolate to narrowly elliptic, 1.6–2 cm × 4–5 mm; outer ones basally saccate. Stamens 1.5–2 cm. Ovary glabrous. Capsule 3–3.5 cm. Fl. and fr. Jun–Sep. $2n = 26$.

Forests, forest margins. Hebei, Henan, Hubei, Shaanxi, Sichuan [Japan].

