

4. ORTHILIA Rafinesque, Autik. Bot. 103. 1840.

单侧花属 dan ce hua shu

Qin Haining (覃海宁); Peter F. Stevens

Actinocyclus Klotzsch (1857), not Ehrenberg (1837, fossil); *Ramischia* Opiz ex Garcke.

Subshrubs evergreen, herbaceous, small. Leaves spiral or subverticillate at middle of stem, thin. Inflorescence racemose, small; scape small papillose. Flowers 4–15 along one side of raceme, small. Petals not persistent. Anthers lacking tubules. Disk 10-lobed. Stamens 10, erect, projecting; tubes absent. Styles erect, slender; stigmas peltate. Capsule pubescent at margin of valve.

One or two species: circumboreal; two species in China.

- 1a. Leaves broadly ovate, 1.2–2.3 cm, apex obtuse or broadly rounded; inflorescences 4–8-flowered 1. *O. obtusata*
- 1b. Leaves oblong-ovate, 2.2–3.7 cm, apex acute; inflorescences 8–15-flowered 2. *O. secunda*

1. *Orthilia obtusata* (Turczaninow) H. Hara, J. Jap. Bot. 20: 328. 1944.

钝叶单侧花 dun ye dan ce hua

Pyrola secunda Linnaeus var. *obtusata* Turczaninow, Bull. Soc. Imp. Naturalistes Moscou 21(4): 507. 1848; *Orthilia nummularia* (Ruprecht) Y. L. Chou; ?*O. obtusata* var. *xizangensis* Y. L. Chou; *O. secunda* (Linnaeus) House var. *nummularia* (Ruprecht) H. Hara; *O. secunda* subsp. *obtusata* (Turczaninow) Böcher; *O. secunda* var. *obtusata* (Turczaninow) House; *Pyrola nummularia* (Ruprecht) Ruprecht ex Komarov; *P. obtusata* (Turczaninow) Turczaninow ex Komarov; *P. secunda* var. *nummularia* Ruprecht; *P. secunda* subsp. *obtusata* (Turczaninow) Hultén; *P. secunda* var. *pumila* Chamisso; *Ramischia obtusata* (Turczaninow) Freyn; *R. secunda* (Linnaeus) Garcke subsp. *obtusata* (Turczaninow) Andres.

Shrubs evergreen, herbaceous. Rhizome long creeping, slender, 0.5–1 mm in diam., woody, branched. Stems erect or ascending, 2–10 cm, 0.8–1.5 mm in diam., simple, angular, longitudinally minutely papillose. Leaves in 1–3 subverticils of 2–4

Shrubs evergreen, herbaceous, 4–15 cm high. Rhizome long branched. Leaves subverticillate at base of stem; petiole 0.5–1.5 cm; leaf blade dark green abaxially, light green adaxially, broadly ovate, 1.2–2.3 × 1–2 cm, thinly leathery, base rounded or obtuse to truncate, margin crenulate-serrulate, apex obtuse or nearly rounded. Scape slender, loosely and minutely papillose, scales 1–3 at base, ovate-lanceolate, 3–5 mm. Raceme 1.5–4 mm, with 4–8 rather densely arranged flowers along one side. Bracts broadly lanceolate, 2–3 mm, membranous, apex abruptly acute. Pedicel ca. 2 mm, slender, prominently papillose. Sepals ovate-orbicular, ca. 1 mm, margin minutely toothed, apex obtuse. Petals broadly elliptic, 4–5 × 2–3 mm, margin toothed. Anthers 1.5–1.8 mm, apex truncate; pores 0.6–0.9 mm wide. Style exserted, straight, (1.5–)2–4 mm; stigma peltate with 5 shallow lobes. Capsules depressed-globose, ca. 4 mm in diam. Fl. Jul, fr. Jul–Aug. $2n = 38$.

Coniferous forests. Gansu, Heilongjiang, Nei Mongol, Qinghai, Shanxi, N Sichuan, Xinjiang, Xizang [Mongolia, ?Russia (Siberia)].

2. *Orthilia secunda* (Linnaeus) House, Amer. Midl. Nat. 7: 134. 1921.

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Pyrola secunda Linnaeus, Sp. Pl. 1: 396. 1753; *Actinocyclus secundus* (Linnaeus) Klotzsch; *Orthilia parvifolia* Rafinesque; *P. secunda* var. *vulgaris* Turczaninow; *Ramischia secunda* (Linnaeus) Garcke; *R. secundiflora* Opiz.

each, alternating with 5–7 scales; petiole 1–2 cm, minutely papillose; leaf blade pale green abaxially, light green adaxially, oblong-ovate to broadly ovate or elliptic, $2.2\text{--}3.7 \times 1.4\text{--}2.6$ cm, thinly leathery to herbaceous, abaxially glabrous, adaxially slightly shiny, base obtuse to truncate, margin crenulate-serrulate, apex acute to subobtuse or mucronulate. Scape 7–14 cm tall, slender, 0.4–1 mm in diam., loosely and minutely papillose, angled; scales 5–8 at middle and base, narrowly ovate or broadly lanceolate, 2–5 mm. Raceme with 8–15 rather densely arranged flowers along one side. Bracts broadly oblanceolate or broadly lanceolate, 3–5 mm, membranous, somewhat hyaline-margined, apex abruptly acute. Pedicel ca. 3 mm, slender, rather prominently papillose. Sepals overlapping at base, depressed-orbicular, 0.8–1 mm, margin minutely toothed, apex obtuse. Petals erect, greenish white, 3–5 mm. Anthers 1–1.5 mm, apex truncate; pores 0.3–0.4 mm wide. Style exserted, straight or slightly curved, ca. 4 mm; stigma peltate with 5 shallow lobes. Capsules 5-angular, ca. 4 mm in diam. Seeds with thin testa prolonged at both ends, fusiform to oblong; testa generally with 6–8 cells along longest axis. Fl. Jul–Aug, fr. Sep–Oct. $2n = 38$.

Deciduous broad-leaved or subalpine coniferous forests; sea level to 3200 m. Heilongjiang, Jilin, Liaoning, Nei Mongol, Xinjiang [Japan, Kashmir, N Korea, Mongolia, Russia; widely distributed in N temperate and subarctic zones].

