

50. PHTHEIROSPERMUM Bunge ex Fischer & C. A. Meyer,
Index Sem. Hort. Petrop. 1: 35. 1835.

松蒿属 song hao shu

Herbs, annual or perennial, viscid glandular villous. Stems 1 or cespitose. Leaves petiolate or sessile; leaf blade pinnately parted to pinnatisect. Flowers axillary from upper leaves, in lax racemes, short pedicellate. Bracteoles absent. Calyx campanulate, 5-lobed; lobes entire to pinnately parted. Corolla tubular, with 2 folds; lower lip spreading flat, 3-lobed; upper lip shorter than lower, erect, 2-lobed; lobes revolute. Stamens 4, didynamous; anterior stamens longer than posterior, included or ± exerted; anthers glabrous or woolly; anther locules 2, equal, distinct, parallel, mucronate. Ovary narrowly ovoid, apex 2-lobed. Capsule ovoid, compressed, beaked, loculicidal, valves entire. Seed ovoid; seed coat reticulate.

About three species: E Asia; two species in China.

1a. Annuals; pinnae narrowly ovate to ovate-orbicular; corolla pale red to purple-red 1. *P. japonicum*

1b. Perennials; pinnae linear; corolla yellow to orange-yellow 2. *P. tenuisectum*

1. *Phtheirospermum japonicum* (Thunberg) Kanitz, Exp. Asiae Orient. 12. 1878.

松蒿 song hao

Capsule 4–6 mm. Seeds ovoid, less than 1 mm. Fl. and fr. May–Oct.

Grassy slopes, under woods, in thickets; 1900–4100 m. Guizhou, Qinghai, Sichuan, Xizang, Yunnan [Bhutan].

Gerardia japonica Thunberg in Murray, Syst. Veg. ed 14, 553. 1784; *Phtheirospermum chinense* Bunge.

Annuals, (5–)60–100 cm tall. Stems erect or curved and ascending, usually much branched. Leaves opposite; petiole 5–12 mm, narrowly winged; leaf blade narrowly triangular-ovate, 1.5–5.5 × 0.8–3 cm, pinnately parted to pinnatisect; pinnae narrowly ovate to ovate-orbicular, 4–10 × 2–5 mm, base suboblique, margin double serrate or parted. Pedicel 2–7 mm. Calyx 4–10 mm; lobes lanceolate, 2–6 × 1–3 mm, foliaceous, pinnately parted. Corolla pale red to purple-red, 0.8–2.5 cm, outside villous; lower lobes obtuse; upper lobes triangular-ovate. Filaments basally pilose. Capsule 6–10 mm. Seeds flattened, ca. 1.2 mm. Fl. and fr. Jun–Oct.

Shady places in thickets on mountain slopes; 100–1900 m. throughout China except Xinjiang [Japan, Korea, Russia (Far East)].

2. *Phtheirospermum tenuisectum* Bureau & Franchet, J. Bot. 5: 129. 1891.

裂叶松蒿 lie ye song hao

Perennials, 10–55 cm tall. Stems numerous, cespitose, slender, basally curved, ascending, simple or apically branched. Leaves opposite or sometimes subopposite above middle of stem; leaf blade triangular-ovate, 1–4 × 0.5–3.5 cm, pinnatisect; pinnae linear, with villous multicellular glandular hairs, apex obtuse and sometimes mucronate. Flowers solitary. Pedicel 1–3 mm. Calyx 5–8 mm, glandular villous; lobes ovate to lanceolate, 2–4 × 1–2 mm, margin entire or parted into 2 or more segments. Corolla usually yellow to orange-yellow, outside glandular and eglandular villous; tube 0.6–1.5 cm; throat hairy; lower lobes obovate, 4–6.5 mm, subequal or middle lobe slightly larger than lateral lobes, margin ciliate, apex obtuse to emarginate; upper lobes ovate, 3–4 mm. Stamens included. Ovary pilose.

