

38. CHAMAERHODOS Bunge in Ledebour, Fl. Altaic. 1: 429. 1829.

地蔷薇属 di qiang wei shu

Li Chaoluan (李朝銮 Li Chao-luang); Hiroshi Ikeda, Hideaki Ohba

Herbs or subshrubs, glandular pilose or pubescent. Flowering stems erect, slender. Leaves alternate; stipules membranous at base, adnate to petiole; leaf blade 1–3 times 3-parted into narrow segments. Inflorescence cymose, corymbose, or paniculate, rarely a solitary flower. Flowers small. Hypanthium obconic, tubular, or campanulate. Sepals 5, erect, valvate, persistent. Petals 5, white or purple. Disk lining mouth of hypanthium, setose with long, rigid hairs, margin thickened. Stamens 5, opposite petals. Carpels 4–10 or more; ovule ascending from base of locule; style basal, articulate at base, deciduous; stigma capitate. Achenes few or many, ovoid, glabrous, enclosed by hypanthium. Seed erect.

About eight species: Asia, North America; five species in China.

- 1a. Herbs biennial or annual, usually 1-stemmed, 20–50 cm tall, slightly woody at base; petals equaling or slightly longer than sepals; carpels 10–15 1. *C. erecta*
- 1b. Herbs perennial or subshrubs, many stemmed, tufted, 5–30 cm tall, woody at base; petals shorter or longer than sepals; carpels 4–8.
 - 2a. Radical leaves 2 or 3 times 3-parted.
 - 3a. Flowering stems 10–30 cm tall, sparsely glandular pubescent and villous; ultimate segments of radical leaves linear, apex rounded or acute; cauline leaves present; hypanthium broadly campanulate; petals obovate, longer than sepals, apex emarginate; carpels 4–6 2. *C. canescens*
 - 3b. Flowering stems 6–10 cm tall, glandular pubescent and villous; ultimate segments of radical leaves oblong-spatulate, apex obtuse; cauline leaves present or absent; hypanthium campanulate or obconic; petals lanceolate-spatulate or cuneate, shorter or slightly longer than sepals, apex rounded; carpels usually 6–8 3. *C. sabulosa*
 - 2b. Radical leaves once 3-parted or 3-fid.
 - 4a. Subshrubs, 5–6 cm tall, villous and glandular pubescent; radical leaves 3-parted with linear segments; flowers solitary or 3–5 in cymes 4. *C. altaica*
 - 4b. Herbs perennial, 5–18 cm tall, pilose or glabrous; radical leaves 3-fid with narrowly linear segments; flowers many, in dichasial panicles 5. *C. trifida*

1. *Chamaerhodos erecta* (Linnaeus) Bunge in Ledebour, Fl. Altaic. 1: 430. 1829.

地蔷薇 di qiang wei

Sibbaldia erecta Linnaeus, Sp. Pl. 1: 284. 1753; *Chamaerhodos micrantha* J. Krause; *C. songarica* Juzepczuk.

Herbs biennial or annual, villous and glandular hairy. Roots woody. Flowering stem solitary, rarely few and tufted, erect or arcuate-ascending, 20–50 cm tall, slightly woody at base, often branched in upper 1/2. Radical leaves in a dense rosette, usually withering in fruit; stipules leaflike, 3- or more sect; petiole 1–2.5 cm; leaf blade 1–2.5 cm, 2 times 3-parted, base cuneate; lateral lobes 2-sect, median one often 3-sect into 3–5-fid segments; ultimate segments or lobes linear, 1–2 mm, margin entire, apex obtuse; cauline leaves resembling radical ones but sessile and 3-parted. Inflorescence terminal, cymose, repeatedly dichasially branching into a many-flowered panicle 1.5–3 cm in diam.; bracts and bracteoles 2- or 3-fid with linear lobes. Flowers 2–3 mm in diam.; pedicel long, slender, 3–6 mm. Hypanthium turbinate or campanulate, ca. 1 mm. Sepals ovate-lanceolate, 1–2 mm, apex acuminate. Petals pale pink or white, obovate, 2–3 mm, glabrous, base tapering into a cuneate claw, apex rounded. Stamens shorter than petals. Carpels 10–15, free; ovary ovoid or cylindrical; style lateral-basal. Achenes dark brown, ovoid or cylindrical, 1–1.5 mm, glabrous, smooth, apex mucronate. Fl. and fr. Jun–Aug.

Mountain slopes, hills, dry sandy river banks; ca. 2500 m. Gansu, Hebei, Heilongjiang, Henan, Jilin, Liaoning, Nei Mongol, Ningxia, Qinghai, Shaanxi, Shanxi, Xinjiang [Korea, Mongolia, Russia].

This species is used medicinally.

2. *Chamaerhodos canescens* J. Krause, Repert. Spec. Nov. Regni Veg. Beih. 12: 411. 1922.

灰毛地蔷薇 hui mao di qiang wei

Chamaerhodos corymbosa Muravjeva var. *brevifolia* Muravjeva.

Herbs perennial. Roots woody. Flowering stems many, tufted, erect or ascending, 10–30 cm tall, densely glandular pubescent and sparsely pilose at base, branched in upper 1/2. Radical leaves densely arranged; petiole 1.5–3 cm, long setose; leaf blade 1–1.5 cm, 2 times 3-parted, glandular hairy and gray setose, base cuneate; segments entire or 2- or 3-sect into 2- or 3-fid segments; ultimate lobes linear, 4–6 mm, margin entire, apex obtuse or acute; cauline leaves resembling radical ones but petiole ca. 5 mm and lateral segments usually entire, sometimes incised, central segment 3-fid into 2- or 3-lobed lobes. Inflorescence compact, compound, cymose, many flowered; peduncle and pedicels glandular hairy; bracts and bracteoles lanceolate, 5–10 mm, 2- or 3-parted into linear segments, glandular hairy. Flowers 2–3 mm in diam.; pedicel 2–4 mm. Hypanthium broadly campanulate, 2–3 mm, abaxially setose. Sepals lanceolate, ca. 2 mm, markedly 10-ribbed and setose, apex acuminate.

Petals pale pink or white, obovate, 3–4 mm, glabrous, base tapering into a cuneate claw, apex emarginate. Filaments 1.5–2 mm, glabrous. Receptacle villous. Carpels 4–6, free; ovary glabrous; style filiform. Achenes black-brown, cylindrical-ovoid, ca. 2 mm, glabrous, apex mucronate. Fl. Jun–Aug, fr. Aug–Oct.

Rocks on mountain slopes. Hebei, Heilongjiang, Jilin, Liaoning, Nei Mongol, Shanxi [Mongolia, Russia].

3. *Chamaerhodos sabulosa* Bunge in Ledebour, Fl. Altaic. 1: 432. 1829.

砂生地蔷薇 sha sheng di qiang wei

Herbs perennial. Flowering stems many, tufted, spreading or ascending, 6–10(–18) cm tall, slightly hard, together with leaves and petioles glandular hairy and pilose. Radical leaves in a dense rosette, not withering in fruit; stipules entire at margin; petiole 1.5–2.5 cm; leaf blade 1–3 cm, 3 times 3-parted; segments entire or 2- or 3-sect into entire or 2- or 3-fid segments; ultimate lobes spatulate, 1–2 mm, apex rounded; cauline leaves few or absent, resembling radical ones but 3-parted with segments entire or 2- or 3-fid. Inflorescence terminal, compressed at anthesis, later becoming lax, paniculate-corymbiform, many flowered; bracts and bracteoles linear, 1–2 mm, margin entire. Flowers 3–5 mm in diam. Hypanthium campanulate or pyriform, 2–4.5 mm, pilose. Sepals erect, triangular-ovate, equaling or slightly longer than hypanthium, apex acute. Petals white or pink, lanceolate-spatulate or cuneate, 2–3 mm, shorter than or equaling sepals, apex rounded. Filaments glabrous, shorter than petals. Carpels (5 or)6–8(–10), free. Achenes brown, shining, ovoid, ca. 1 mm. Fl. Jun–Jul, fr. Aug–Sep.

Sands and gravels on river banks. Nei Mongol, Xinjiang, Xizang [Mongolia, Russia].

4. *Chamaerhodos altaica* (Laxmann) Bunge in Ledebour, Fl. Altaic. 1: 429. 1829.

阿尔泰地蔷薇 a er tai di qiang wei

Sibbaldia altaica Laxmann, Novi Comment. Acad. Sci. Imp. Petrop. 18: 527. 1774.

Subshrubs. Flowering stems many, spreading, forming dense, compact tufts 5–6 cm tall, covered with peeling, dark brown bark and with relics of dead leaves in upper part, villous and glandular pubescent throughout. Radical leaves many; petiole 0.5–1.2 cm; leaf blade 1.5–2.5 cm, once 3-parted; lateral segments entire or 2- or 3-sect; ultimate segments linear. Inflorescence cymose and 3–5-flowered or flower solitary; bracts and bracteoles linear, 1–2 mm. Flowers 4–5 mm in diam.; pedicel 3–5 mm. Hypanthium green or red-purple, tubular, 3–4 mm. Sepals ovate-lanceolate, shorter than or nearly equaling hypan-

thium, abaxially villous and glandular pubescent. Petals purple or violet, obovate to broadly ovate, 4–5 mm, glabrous. Stamens shorter than petals. Carpels 6–10, free. Achenes brown, cylindrical, ca. 2 mm, glabrous. Fl. Jun–Aug, fr. Sep–Nov.

Mountain slopes. Nei Mongol [Mongolia, Russia].

5. *Chamaerhodos trifida* Ledebour, Fl. Ross. 2: 34. 1843.

三裂地蔷薇 san lie di qiang wei

Chamaerhodos klementzii Muravjeva, p.p.

Herbs perennial. Flowering stems many, tufted, erect or ascending, unbranched, 5–18 cm tall, woody at base, pilose or glabrous. Radical leaves 1.5–4 cm, villous and glandular hairy; stipules linear, 4–5 mm, margin entire; petiole 1.5–2 cm; leaf blade once 3-parted; segments linear, entire or 2- or 3-sect; lower cauline leaves shortly petiolate, upper ones sessile; leaf blade 3–5-fid. Inflorescence paniculate, dichasially branched, many flowered; peduncle and pedicels slightly glandular hairy; bracts and bracteoles linear, 2–4 mm, pilose. Flowers 5–6 mm in diam.; pedicel 3–5 mm. Hypanthium tubular, 3–4 mm, abaxially pubescent at base, 10-veined. Sepals triangular-ovate, ca. 2 mm, pilose and glandular hairy, apex acuminate. Petals pink, obovate, 4–6 mm, glabrous, base tapering into a cuneate claw, apex rounded. Filaments shorter than petals, glabrous. Carpels 6–10, free. Achenes cylindrical, ca. 2 mm, glabrous. Fl. Jun, fr. Aug.

Meadows on mountain slopes. Heilongjiang [Mongolia, Russia].

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