

4. **KUNGLIA** K. T. Fu, J. NorthW. Teachers Coll. (Nat. Sci.) 1: 3. 1988.

孔岩草属 kong yan cao shu

Fu Kunjun (傅坤俊 Fu Kun-tsun); Michael G. Gilbert

Herbs perennial, glabrous or hairy. Roots short, fibrous. Stolons present; sterile stems usually present. Basal leaves in subsessile rosettes, spiral or decussate, mostly alternate; stem leaves alternate. Flowering stems erect, very slender but strong. Inflorescence terminal, racemiform or paniculiform, formed by many cymelets, many flowered; bracts acuminate at apex. Flowers bisexual, 5-merous. Sepals lanceolate-triangular, spurless. Petals connate at base, red or purple, lanceolate, apex acute. Stamens 1 or 2 × as many as petals, inserted opposite sepals; anthers oblong-reniform. Nectar scales short. Carpels nearly free, oblong, base attenuate or stalked. Styles long. Follicles erect, many seeded. Seeds ovoid, minutely papillate.

• Two species.

1a. Basal leaves obovate, oblong, broadly elliptic, or orbicular, 5–16 mm wide 1. *K. aliciae*

1b. Basal leaves obovate-lanceolate, 1–2 mm wide 2. *K. schoenlandii*

1. ***Kungia aliciae*** (Raymond-Hamet) K. T. Fu, J. NorthW. Teachers Coll. (Nat. Sci.) 1: 4. 1988.

孔岩草 kong yan cao

Basal leaves decussate or spiral, forming a rosette; middle stem leaves opposite or alternate; distal stem leaves alternate; basal leaf blade obovate, oblong, broadly elliptic, or orbicular, 9–12 × 5–16 mm, margin entire, narrowly brown lunulate, apex obtuse to rounded. Flowering stems 10–35 cm, usually minutely papillate-hairy at base. Inflorescence racemiform, simple or few branched, or paniculiform with cymose branches; pedicels long. Sepals narrowly triangular, 1–2 × 0.5–0.8 mm. Petals red to reddish violet, lanceolate to oblong, 3.5–4.5 × 0.8–1 mm, apex acuminate. Stamens 5. Nectar scales nearly transversely oblong. Carpels suboblong. Styles ca. 1 mm. Follicles ca. 3 mm including style. Fl. Jun–Aug.

• Moist rocks on valley slopes; 1300–2500 m. S Gansu, N Sichuan.

1a. Basal leaves spiral, middle and distal stem leaves alternate; inflorescence racemiform, simple or few branched 1a. var. *aliciae*

1b. Basal leaves decussate, middle stem leaves opposite, distal stem leaves alternate; inflorescence paniculiform with cymose branches 1b. var. *komarovii*

1a. ***Kungia aliciae*** var. *aliciae*

孔岩草(原变种) kong yancao (yuan bian zhong)

Crassula aliciae Raymond-Hamet, Bull. Soc. Bot. France 55: 710. 1908; *Orostachys aliciae* (Raymond-Hamet) H. Ohba; *Sedum aliciae* (Raymond-Hamet) Raymond-Hamet; *Sinocrassula aliciae* (Raymond-Hamet) A. Berger.

Basal leaves spiral; middle and distal stem leaves alternate. Inflorescence racemiform, simple or few branched.

• 2000–2500 m. S Gansu, N Sichuan.

1b. ***Kungia aliciae*** var. *komarovii* (Raymond-Hamet) K. T. Fu, J. NorthW. Teachers Coll. (Nat. Sci.) 1: 4. 1988.

对叶孔岩草 dui ye kong yan cao

Sedum aliciae var. *komarovii* Raymond-Hamet, Russk. Bot. Zhurn. 1913: 175. 1913.

Basal leaves decussate; middle stem leaves opposite; distal stem leaves alternate; Inflorescence paniculiform with cymose branches.

• Moist rocks on valley slopes; 1300–1700 m. NC Sichuan (Maowen Qiang Zu Zizhixian, Wenchuan Xian).

2. ***Kungia schoenlandii*** (Raymond-Hamet) K. T. Fu, J. NorthW. Teachers Coll. (Nat. Sci.) 1: 5. 1988.

弯毛孔岩草 wan mao kong yan cao

Basal leaves forming a dense rosette; leaf blade obovate-lanceolate, abaxially curved, ca. 5 × 1–2 mm, margin entire or coarsely dentate, apex obtuse. Flowering stem ascending, curved, 6–30 cm, sparsely glandular hairy. Inflorescence racemose or paniculate-racemiform and composed of cymelets; cymelet peduncles slender, short; pedicels to 4 mm. Sepals narrowly triangular, ca. 2 × 0.6 mm, Petals red, oblong-lanceolate, 5.5–6 × ca. 1 mm, apex long acute. Stamens 5, shorter than petals. Nectar scales spatulate-quadrate, apex subemarginate. Carpels lanceolate. Styles ca. 1.5 mm. Follicles ca. 3.5 mm including style. Seeds broadly fusiform, striate. Fl. Jun–Jul, fr. Aug–Sep.

• Sunny rocks, valleys and rocks on slopes, rocks near river banks, stone walls; 700–3100 m. S Gansu, Shaanxi, N Sichuan.

1a. Leaf blade adaxially densely glandular hairy, abaxially sparsely glandular hairy, hairs long and reflexed, margin entire; inflorescence conical, most flowers in cymelets; petals 5–6 mm 2a. var. *schoenlandii*

1b. Leaf blade shortly white lepidote, minutely papilliferous, or glabrous, margin entire or coarsely dentate; inflorescence uniformly slender, many flowers solitary; petals ca. 4 mm 2b. var. *stenostachya*

2a. ***Kungia schoenlandii*** var. *schoenlandii*

弯毛孔岩草(原变种) wan mao kong yan cao (yuan
bian zhong)

Sedum schoenlandii Raymond-Hamet, Repert. Spec.
Nov. Regni Veg. 8: 265. 1910; *Orostachys schoenlandii*
(Raymond-Hamet) H. Ohba; *Sinocrassula schoenlandii*
(Raymond-Hamet) S. H. Fu.

Leaf blade adaxially densely glandular hairy, abaxially
sparsely glandular hairy, margin entire. Fl. Jun–Jul, fr.
Aug–Sep.

- Sunny rocks, stone walls; 3000–3100 m. N Sichuan (Songpan Xian).

2b. *Kungia schoenlandii* var. *stenostachya* (Fröderström) K.
T. Fu, J. NorthW. Teachers Coll. (Nat. Sci.) 1: 5. 1988.

狭穗孔岩草 xia sui kong yan cao

Sedum stenostachyum Fröderström, Acta Horti Gothob.
7: 113. 1932; *Kungia schoenlandii* var. *lepidotricha* K.
T. Fu; *Orostachys stenostachya* (Fröderström) H. Ohba;
Sinocrassula stenostachya (Fröderström) S. H. Fu; *S.*
stenostachya var. *integrifolia* S. H. Fu; *S. stenostachya*
var. *lepidotricha* S. H. Fu.

Leaf blade shortly white lepidote, minutely
papilliferous, or glabrous, margin entire or coarsely
dentate. Fl. Jul, fr. Aug.

- Valleys and rocks on slopes, rocks near river banks, stone walls;
700–2700 m. S Gansu, Shaanxi.

The toothed, slightly broader rosette leaves, very short, papillalike
hairs, racemelike inflorescence, and shorter petals suggest that this
variety might be better placed under *Kungia aliciae*.

