

RESEDACEAE

木犀草科 mu xi cao ke

Lu Lianli (陆莲立 Lou Lian-li)¹; Nicholas J. Turland²

Herbs annual to perennial, rarely woody. Leaves alternate, entire to pinnatifid, with small, glandular stipules. Flowers bisexual, rarely unisexual, in terminal racemes or spikes. Sepals persistent, 4–7. Petals usually 4–7 or absent, entire or cleft, hypogynous or perigynous. Stamens 3–40, inserted on disc, exposed in bud; disc often eccentric; filaments free or connate at base; anthers 2-loculed. Carpels 2–6, free or united into a 1-loculed ovary; ovules numerous; placentation parietal or basal. Fruit a capsule or berrylike. Seeds numerous, reniform or suborbicular; endosperm almost absent; cotyledons curved.

Six genera and ca. 80 species: Africa, C and SW Asia, Atlantic Islands, S Europe, SW North America, widely naturalized elsewhere; two genera (one introduced) and four species (three introduced) in China.

Reseda chinensis Loureiro (Fl. Cochinch. 1: 299. 1790) and *R. cochinchinensis* Loureiro (loc. cit.) are both synonyms of *Hypericum japonicum* Thunberg (Clusiaceae) according to Merrill (Trans. Amer. Philos. Soc., n.s., 24(2): 267. 1935).

Chen Wei-chiu. 1984. Resedaceae. In: Fu Shu-hsia & Fu Kun-tsun, eds., Fl. Reipubl. Popularis Sin. 34(1): 1–6.

- 1a. Leaves toothed to pinnatifid, rarely entire; petals 4–7; stamens 7–40, forming a disc at base 1. *Reseda*
1b. Leaves entire; petals 2; stamens 3–8, not forming a disc at base 2. *Oligomeris*

1. RESEDA Linnaeus, Sp. Pl. 1: 448. 1753.

木犀草属 mu xi cao shu

Herbs annual or perennial, erect or spreading, ± decumbent, rarely shrubs, pubescent or glabrous. Leaves entire to pinnatifid; stipules glandular. Flowers borne in racemes. Sepals 4–7. Petals 4–7, usually lobed, clawed at base. Stamens 7–40, forming a disc at base. Carpels 3–6, united at base; placentas 3–6; ovules numerous. Capsule 1-valved, opening widely at maturity.

About 60 species: E and N Africa, C and SW Asia, N Atlantic Islands, S Europe, widely naturalized elsewhere; three species (introduced) in China.

- 1a. Leaves entire or toothed to parted; flowers white to light yellow or orange-red, fragrant; capsule pendulous 1. *R. odorata*
1b. Leaves 3–5-parted or pinnatifid; flowers white, yellow, or yellowish green; capsule erect.
2a. Leaves pinnatifid; flowers white, sepals and petals usually 5; capsule 4-lobed at apex 2. *R. alba*
2b. Leaves 3–5-parted or pinnatifid; flowers yellow or yellowish green, sepals and petals usually 6; capsule 5-lobed at apex 3. *R. lutea*

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1. *Reseda odorata* Linnaeus, *Amoen. Acad.* 3: 51. 1756.

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Herbs usually annual, to 40 cm tall, glabrous. Stem branched. Leaves subsessile, spatulate or lanceolate to elliptic-oblong, entire or toothed to parted, papery. Flowers in terminal racemes; white or light yellow, or orange-red when cultivated, very fragrant. Sepals 6, narrowly spatulate, 2.5–4 mm, shorter than pedicel. Petals 6, clawed at base, lower 2 entire, lateral 2 digitate, upper 2 digitate with few segments and equaling sepals. Stamens 17–20; filaments subulate. Carpels 3. Capsule pendulous, subglobose or urceolate, 3-angled, ca. 1 cm. Seeds black, shiny, 2–2.5 mm; testa rugose. $2n = 12$.

Cultivated for ornament. Shanghai Shi, Taiwan, Zhejiang (Hangzhou Shi) [native to S Greece (Gavdos Island) and NE Libya; widely cultivated and naturalized elsewhere].

2. *Reseda alba* Linnaeus, *Sp. Pl.* 1: 449. 1753.

白木犀草 bai mu xi cao

Herbs annual or perennial, 30–90 cm tall, glabrous. Stem erect, angular. Leaves pinnatifid, papery; lobes in 5–15 pairs, linear, attenuate at base, margin entire or repand. Flowers in terminal, dense racemes. Sepals

usually 5, linear, equaling pedicel. Petals usually 5, subrounded-clawed at base, 3-lobed for 1/3–2/3 their length; lateral lobes often again lobed. Stamens 11–14. Carpels 4. Capsule erect, oblong, 4-angled, 8–15 mm, apically constricted and 4-cleft. Seeds light brown, reniform, ca. 1 mm. $2n = 20, 40$.

Cultivated for ornament. Taiwan [native to the Mediterranean region; widely naturalized elsewhere].

3. *Reseda lutea* Linnaeus, *Sp. Pl.* 1: 449. 1753.

黄木犀草 huang mu xi cao

Herbs annual or perennial, caespitose, 30–75 cm tall, glabrous. Stem branched, angular. Leaves 3–5-parted to pinnatifid, papery; lobes linear, margin repand. Flowers in terminal racemes, yellow to yellowish green; pedicel 3–5 mm. Sepals 6, linear, unequal, shorter than pedicel. Petals 6, rounded-clawed at base, lower 2 entire, lateral two 2- or 3-parted, upper 2 largest, 3-parted. Stamens 12–20. Carpels 3, connate. Capsule erect, cylindric or ovoid to subglobose, obtusely 3-angled, ca. 1 cm, apically 3-cleft. Seeds black, shiny, reniform, ca. 2 mm. Fl. and fr. Jul–Aug. $2n = 12, 24, 48$.

Mountain slopes, probably escaped from cultivation. Liaoning [native to SW Asia (E to Turkmenistan) and the Mediterranean region; widely naturalized elsewhere].

2. OLIGOMERIS Cambessèdes in Jacquemont, *Voy. Inde 4(Bot.): 23.* 1839, nom. cons.

川犀草属 chuan xi cao shu

Dipetalia Rafinesque, nom. rej.; *Ellimia* Nuttall, nom. rej.

Herbs annual, biennial, or perennial. Leaves alternate or fasciculate, linear, entire. Flowers borne in terminal spikes, whitish. Sepals 4-parted. Petals 2, free or connate at base. Stamens 3–8, free or connate at base; disc absent. Ovary 4-angled; placentas 4, parietal; ovules numerous. Capsule angled. Seeds numerous.

Three species: two in S Africa, the other in N Africa, S Asia, N Atlantic Islands, and SW North America; one species in China.

1. *Oligomeris linifolia* (Vahl) Macbride, *Contr. Gray Herb.*, n.s., 53: 13. 1918.

川犀草 chuan xi cao

Reseda linifolia Vahl in Hornemann, *Hort. Bot. Hafn.* 2: 501. 1815; *Oligomeris glaucescens* Cambessèdes.

Herbs annual, biennial, or perennial, 10–40 cm tall, glabrous. Stem erect, branched from base. Leaves alternate or fasciculate, linear, entire, 1–5 cm × 0.5–2 mm, apex obtuse or acute. Flowers sessile or nearly so, light greenish white, minute;

bract lanceolate, ca. 1.8 mm. Sepals 4-parted; lobes lanceolate. Petals slightly shorter than sepals. Stamens 3; filaments connate at base. Capsule sessile or subsessile, light yellow, subglobose, ca. 2 mm diam., angled, apically 4-cleft. Seeds black or light green, shiny, numerous. Fl. and fr. Jun–Jul. $2n = 30, 32$.

Beaches of the Jinsha Jiang; ca. 2100 m. Sichuan, Yunnan [W India, Pakistan; N Africa, SW Asia, Atlantic Islands (Canary Islands), North America (NW Mexico, SW United States)].

The native status of the Chinese plants is perhaps doubtful; the nearest native populations are in NW India, representing a considerable disjunction.

