

6. GLAUCIUM Miller, Gard. Dict. Abr., ed. 4. 1754.

海罂粟属 hai ying su shu

Zhang Mingli (张明理); Christopher Grey-Wilson

Herbs, biennial or perennial, rarely annual, lactiferous. Taproot slender. Stems erect or ascending, terete, glabrous or villous. Basal leaves many, petiolate; leaf blade usually pinnatifid; lobes ampliate to sheath at base, serrate or crenate at margin. Cauline leaves alternate, sessile, cordate-amplexicaul at base, incised or undulate at margin. Flowers solitary, terminal or axillary, usually long pedunculate, large. Sepals 2, caducous, glabrous or villous. Petals 4, convolute in bud, yellow, orange, or red. Stamens numerous. Ovary terete or linear, 2-carpellate, placentas 2-pseudo-located from cellular spongy septum connecting placentas; stigmas 2-divided, almost sessile. Capsule terete, slender, horned and often shortly tridentlike at apex, when mature divided into 2 narrow segments from apex to base or rarely from base to apex. Seeds many, ovoid-reniform, seed coat alveolate, not carunculate.

Twenty-one to 25 species: mainly in temperate Europe, the Mediterranean region, also in C to SW Asia; three species in China.

- 1a. Herbs annual; stems dichotomously branched; basal leaves obovate-oblong, pinnatilobate; carpodium 0.5–1 cm; petals orange, reddish basally 1. *G. elegans*
1b. Herbs annual, biennial, or perennial; stems simple; basal leaves narrowly oblanceolate, pinnatipartite; carpodium very long; petals golden, yellow, or orange.
2a. Herbs annual; flower buds fusiform, smooth; petals yellow or orange, blotched; capsules dehiscing from apex to base; bracts with thick teeth 2. *G. fimbrielligerum*
2b. Herbs biennial or perennial; flower buds oval, much lepidote-aculeate; petals golden, not blotched; capsules dehiscing from base to apex; bracts 3–5-pinnatipartite 3. *G. squamigerum*

1. *Glaucium elegans* Fischer & C. A. Meyer, Ind. Sem. Hort. Petrop. 1: 29. 1835.

天山海罂粟 tian shan hai ying su

Herbs, annual, 10–20 cm tall. Taproot terete, prolonged, upper part 2–4 mm in diam. Stems erect, glaucous, dichotomously branched from near base, glabrous. Basal leaves: petiole flat, 1.5–2.5 cm; leaf blade glaucous on both surfaces, obovate-oblong, pinnatilobate, 4–8 × 1–5 cm, both surfaces glabrous; lobes broadly ovate, margin crenate, apex setose mucronate. Cauline leaves ovate-suborbicular, 2–4 × 1–3 cm, base cordate, amplexicaul, margin undulate-serrate. Flowers solitary, terminal. Flower buds fusiform, 10–20 × 4–7 mm, papillose. Petals orange, reddish at base, broadly obovate, ca. 2 cm. Stamens 6–11 mm; filaments linear, gradually broader toward base; anthers oblong, ca. 1.8 mm. Ovary terete, ca. 1.5 cm, nearly glabrous, almost astylous; stigmas 2-lobed. Capsule linear-terete, 10–16 cm × ca. 2 mm, sparsely subconically aculeate, dehiscing from base to apex; carpodium 5–10 mm, thick. Seeds reniform-oblong, 1.7–2 mm, seed coat black-brown, alveolate. Fl. and fr. May–Jul. 2n = 12.

Deserts, stony slopes on low mountains, river sands and gravel; 700–800 m. Xinjiang [Afghanistan, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan; SW Asia (Caucasus, Iran)].

This taxon probably equates with *Glaucium pumilum* Boissier and *G. tenuie* Regel & Schmalhausen.

2. *Glaucium fimbrielligerum* Boissier, Fl. Orient. 1: 120. 1867.

海罂粟 hai ying su

Dicranostigma iliense C. Y. Wu & H. Chuang; *Glaucium vitellinum* Boissier & Buhse.

Herbs, annual or biennial, 30–60 cm tall. Stems erect, rather robust, branched. Basal leaves: petiole flat; leaf blade

narrowly oblanceolate, pinnatipartite, 7–10 cm; proximal lobes deltoid, distal lobes ovate, smooth, with irregular thick teeth, terminal lobe almost square, distally with thick teeth. Cauline leaves broadly oblong, pinnatifid, 1–3 cm, base cordate, am-

plexicaul, apex acuminate. Flowers solitary, terminal. Bracts broadly ovate, with thick teeth. Pedicel long and thick. Flower buds fusiform, 1.5–2 cm × ca. 5 mm, adaxially smooth. Petals yellow or orange, blotched at base or not, 2–2.5 cm. Capsule linear-terete, 12–18 cm, sparsely appressed papillary aculate, when mature dehiscing from apex to base; carpopodium very long. Fl. and fr. Jun–Oct. $2n = 12$.

Deserts, dry slopes, pebbly riverbeds. Xinjiang [Afghanistan, Kazakhstan, Kyrgyzstan, Uzbekistan; SW Asia (Iran)].

3. *Glaucium squamigerum* Karelin & Kirilov, Bull. Soc. Imp. Naturalistes Moscou 15: 141. 1842.

新疆海罂粟 xin jiang hai ying su

Herbs, biennial or perennial, 20–40 cm tall. Taproot terete, prolonged, upper part 2–7 mm in diam. Stems 3–5, erect, simple, sparsely white aculate. Basal leaves: petiole flat, 3–8 cm, aculate or smooth, base sheathlike, densely covering stem base; leaf blade celadon on both surfaces, narrowly lanceolate, pinnatipartite, 4–13 × 1–3 cm, both surfaces aculate when young but smooth when old; proximal lobes deltoid, distal lobes broadly ovate, broadly obovate, or suborbicular, margin irregularly incised or crenate with teeth cartilaginous mucronate at apex. Cauline leaves 1–3, sessile or shortly petiolate, pinnatifid or bipinnately trifid, 2–5 × 0.5–3 cm, aculate or smooth; lobes cartilaginous mucronate at apex. Flowers solitary, terminal. Bracts pinnatipartite. Pedicel terete, aculate or smooth. Flower buds oval, 1.5–2 cm, membranous at margin, adaxially numerously lepidote-aculeate, apically argute. Petals golden, suborbicular or broadly ovate, 1.5–2.5 cm. Filaments filamentous, ca. 1 cm; anthers oblong, ca. 1 mm. Ovary terete, 1–1.2 cm, densely spiny lepidote; stigmas 2-lobed, sessile. Capsule linear-terete, 15–21 × 2–3 mm, sparsely spiny lepidote, dehiscing from base to apex in age; carpopodium 12–18 cm, thick, with many seeds. Seeds reniform, ca. 1 mm, seed coat black-brown, alveolate. Fl. and fr. May–Oct. $2n = 12$.

Riverbeds, rocky slopes, roadsides, deserts, sandy places; 900–2600 m. Xinjiang [Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan].

