

PEGANACEAE

骆驼蓬科 *luo tuo peng ke*

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Herbs, perennial, branched, with neither basal nor terminal aggregations of leaves. Stipules when present intrapetiolar, distinct, setaceous, caducous. Leaves alternate, spiral, sessile, nonsheathing, simple; leaf blade pinnately veined, margin dissected or entire and when dissected ± irregularly pinnatifid. Flowers solitary [or aggregated in inflorescences], 4- or 5-merous, hypogynous, disk present. Sepals 4 or 5, 1-whorled, persistent, valvate. Petals 4 or 5, white, 1-whorled, imbricate. Stamens 12 or 15, distinct, 3-whorled, alternating with and opposite petals; pollen grains aperturate. Ovary 2- or 3-locular, subsessile; style 1. Fruit a capsule or berry, fleshy or not fleshy. Seeds 10–100.

Two genera and ca. seven species: arid and semiarid regions of N Africa, Asia, S Europe, and North America; one genus and three species (one endemic) in China.

This family was included in Zygophyllaceae in FRPS. However, it differs from the Zygophyllaceae in many morphological characters. Molecular evidence also supports its recognition as a separate family.

A dye (“Turkey red”), produced from the seeds, is used for dyeing hats (tarbooshes).

Liou Yingxin. 1998. Peganum. In: Xu Langran & Huang Chengchiu, eds., Fl. Reipubl. Popularis Sin. 43(1): 123–125.

1. PEGANUM Linnaeus, Sp. Pl. 1: 444. 1753.

骆驼蓬属 *luo tuo peng shu*

Herbs, perennial. Leaves simple; leaf blade divided into irregular linear lobes. Flowers solitary, axillary or terminal. Sepals 5, divided into irregular linear lobes, persistent. Petals 5. Stamens 15; filaments broader near base. Styles apically 3-angulate. Capsule 3-locular. Seeds numerous.

Six species: N Africa, C and W Asia, S Europe, North America; three species (one endemic) in China.

Plants are bad tasting and often become invasive weeds in overgrazed areas. The seeds contain oils.

- 1a. Plants hispid; whole plant 10–25 cm tall, erect or spreading 3. *P. nigellastrum*
1b. Plants glabrous or pubescent when young; plant or branches 30–80 cm tall or long, prostrate, spreading, or erect.
2a. Plants erect or spreading, glabrous; leaf blade divided into 3–5 lobes, lobes 1.5–3 mm wide 1. *P. harmala*
2b. Plants prostrate, pubescent when young; leaf blade divided into more than 5 lobes, lobes 1–1.5 mm wide .. 2. *P. multisectum*

1. *Peganum harmala* Linnaeus, Sp. Pl. 1: 444. 1753.

骆驼蓬 *luo tuo peng*

Herbs, perennial, 30–70 cm tall, erect to spreading, much branched from base, glabrous. Roots to 2 cm in diam. Leaves alternate; leaf blade ovate, divided into 3–5 linear to lanceolate-linear lobes; lobes 1–3.5 × 1.5–3 mm. Flowers opposite to leaves on apical parts of branches. Sepals 5, divided into linear lobes, 1.5–2 cm, sometimes only divided at apex. Petals 5, yellowish white, obovate-oblong, 15–20 × 6–9 mm. Stamens 15; filament base enlarged. Ovary 3-locular. Capsule globular. Seeds dark brown, slightly curved, 3-angulate, surface muriculate. Fl. May–Jun, fr. Jul–Nov. $2n = 22, 24$.

Slightly saline sands near oases, dry grasslands in desert areas; 400–3600 m. Gansu, W Hebei, W Nei Mongol, Ningxia, Qinghai, N Shanxi, Xinjiang, Xizang [Afghanistan, Kazakhstan, Kyrgyzstan, Mongolia, Pakistan, Russia, Tajikistan, Turkmenistan, Uzbekistan; N Africa, W Asia, S Europe].

This species is a noxious weed that has escaped often in desert areas around the world.

2. *Peganum multisectum* (Maximowicz) Bobrov, Fl. URSS 14: 149. 1949.

多裂骆驼蓬 *duo lie luo tuo peng*

Peganum harmala Linnaeus var. *multisectum* Maximowicz, Fl. Tangut. 1: 103. 1889.

Herbs, perennial, prostrate, pubescent when young. Branches 30–80 cm. Leaf blade 2–3 × divided into numerous lobes, basal ones nearly perpendicular to rachis; lobes 6–12 × 1–1.5 mm. Sepals 3–5. Petals bright yellow, obovate-oblong, 10–15 × 5–6 mm. Stamens shorter than petals, broader at base. Capsule globular, slightly compressed at both ends. Seeds dark brown, 2–3 mm, slightly incurved, 3-angulate, surface muriculate. Fl. May–Jul, fr. Jun–Sep.

• Sandy areas, wastelands in semidesert areas; 1700–3900 m. Gansu, Nei Mongol, Ningxia, Qinghai, N Shaanxi, Xinjiang, Xizang.

3. *Peganum nigellastrum* Bunge, Enum. Pl. China Bor. 13. 1833.

骆驼蒿 *luo tuo hao*

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Herbs, perennial, 10–25 cm tall, erect or spreading, hispid. Leaf blade 2–3 × divided into lobes; lobes linear, 0.7–1.0 × ca. 1 mm, apex acuminate. Flowers terminal or axillary. Pedicel hispid. Sepals 5, oblanceolate, persistent, ca. 1.5 cm, 5–7 × linear divided, lobes ca. 10 × 1 mm. Petals pale yellow, oblanceolate, 1.2–1.5 cm. Stamens 15, broader at base. Capsule yellowish

brown, globular, 3-locular. Seeds numerous, dark brown, fusi-form, surface muriculate. Fl. May–Jul, fr. Jul–Nov. $2n = 24$.

Dry grasslands, hilly slopes, sandy and gravelly areas, semidesert and steppe areas. Gansu, Hebei, Henan, Nei Mongol, Ningxia, N Shaanxi, Shanxi, N Xinjiang [Mongolia, Russia].