

## 12. CATUNAREGAM Wolf, Gen. Pl. 75. 1776.

山石榴属 shan shi liu shu

Chen Tao (陈涛); Charlotte M. Taylor

*Xeromphis* Rafinesque.

Shrubs or small trees, often with short shoots, often armed with spines or spinescent short shoots. Raphides absent. Leaves opposite or often clustered and apparently fasciculate on short shoots, subsessile to petiolate, usually with domatia; stipules deciduous or caducous, interpetiolar, triangular. Inflorescences terminal on short shoots or these sometimes reduced giving an appearance of axillary position, 1-flowered, or cymose to fasciculate and 2–6-flowered, sessile to pedunculate, bracteate or bracts reduced. Flowers subsessile to pedicellate, bisexual, monomorphic. Calyx limb deeply 5-lobed, lobes spatulate to obovoid. Corolla white to cream or pale green, campanulate to subrotate, usually densely sericeous outside, variously pubescent inside; lobes 5[-10], convolute in bud. Stamens 5, inserted in corolla throat, partially to fully exserted; filaments short; anthers dorsifixed. Ovary 2-celled, ovules many in each cell on axile placentas attached at center of septum; stigma ellipsoid or 2-lobed, exserted. Fruit generally yellowish brown, baccate, leathery to thickly fleshy or infrequently hard, globose, ellipsoid, or ovoid-globose, with calyx limb persistent; seeds numerous, medium-sized, ellipsoid, angled, or reniform, embedded in fleshy or mucilaginous pulp.

About five to perhaps ten species: widespread in Africa, also in Bhutan, China, Cambodia, India, Indonesia, Kashmir, Laos, Madagascar, Malaysia, Myanmar, Nepal, Pakistan, Sri Lanka, Thailand, Vietnam; one species in China.

The calyx limb enlarges markedly during the development of the fruit. At least some species of *Catunaregam* in Africa have nocturnal sweetly fragrant flowers (Bridson & Verdcourt, Fl. Trop. E. Africa, Rub. (Pt. 2), 496–500. 1988), and *Catunaregam* in China may also. Many species of related genera also have secondary pollen presentation, and these features may be present in *Catunaregam* also.

**1. Catunaregam spinosa** (Thunberg) Tirvengadum, Bull. Mus. Natl. Hist. Nat., Sér. 3, Bot. 35: 13. 1978.

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*Gardenia spinosa* Thunberg, Gardenia, 16. 1780; *G. dumetorum* Retzius; *Randia dumetorum* (Retzius) Lamarck; *Randia spinosa* (Thunberg) Poiret; *Xeromphis retzii* Rafinesque; *X. spinosa* (Thunberg) Keay.

Shrubs or small trees, 1–10 m tall; branches rather stout, hirsute, pilose, pilosulous, or puberulent to glabrescent, armed with axillary stout paired thorns 1–5 cm. Petiole 2–8 mm, pilose, pilosulous, or hirtellous to glabrous; leaf blade drying papery or subleathery, obovate or oblong-obovate or rarely ovate to spatulate, 1.8–11 × 1–5.7 cm, both surfaces glabrous to strigillose, strigose, hirtellous, or sparsely hirsute at least along principal veins, base cuneate and sometimes decurrent, margins entire or often shortly ciliate, apex acute; secondary veins 4–7 pairs, often with pilosulous domatia in abaxial axils; stipules caducous, ovate to broadly triangular, 3–4.5 mm, acute to aristate. Inflorescences terminal on lateral short shoots together with tufted leaves, 1–3-flowered; pedicels 2–5 mm, brown villosus or -hirtellous. Calyx brown villosus, -hirtellous, or -strigose; ovary portion ovoid to ellipsoid, 3.5–7 × 4–5.5 mm; limb slightly dilated, deeply lobed; lobes broadly elliptic to oblance-

ceolate or obovoid, 5–8 × 3–6 mm, acute to rounded. Corolla white, becoming pale yellow with age, campanulate; tube 5–6 mm, sparsely villous in throat; lobes ovate or ovate-oblong, 6–11 × (5.5–)8–9 mm, spreading, rounded to subtruncate. Anthers ca. 3 mm, fully exserted. Style 4–6 mm; stigma fusiform, with 2 coherent lobes, ca. 2 mm. Berry globose, 2–4 cm in diam., glabrous or sparsely pilose or strigose; seeds 4–5 mm. Fl. Mar–Jun, fr. May–Jan.

Thickets or forests at streamsides, on hills or mountain slopes, or in valleys or fields; near sea level to 1600 m. Fujian, Guangdong, Guangxi, Hainan, Taiwan, Yunnan [Cambodia, India, Indonesia, Kashmir, Laos, Malaysia, Myanmar, Nepal, Pakistan, Sri Lanka, Thailand, Vietnam; Africa, Madagascar].

W. C. Chen (in FRPS 71(1): 338–340. 1999) noted that this species is sometimes climbing, but this has not been noted by any other authors nor seen on specimens.

