## 1. NELSONIA R. Brown, Prodr. 480. 1810.

## 瘤子草属 liu zi cao shu

Hu Jiaqi (胡嘉琪 Hu Chia-chi), Deng Yunfei (邓云飞); Thomas F. Daniel

Herbs, pubescent, without cystoliths. Leaves opposite, shortly petiolate; leaf blade pinnately veined, margin entire. Inflorescences axillary or terminal spikes; bracts overlapping. Flowers ± spirally arranged, sessile, subtended by a bract; bracteoles absent. Calyx 4-lobed to base; lobes unequal, anterior lobe apically 2-cleft. Corolla tube slender, sometimes widening into a throat; limb 2-liped; lower lip 3-lobed, upper lip 2-lobed; lobes ± equal, descending cochlear in bud. Stamens 2, included or slightly exserted; filaments basally pubescent; anthers 2-thecous; thecae subspherical, muticous, opening at base by a pore that has a small flap; staminodes absent. Ovary with 8–28 ovules in 2–4 rows per locule; stigma usually unequally 2-lobed. Capsule conical; retinacula absent. Seeds subspherical, small, flattened on 1 face, lacking trichomes.

Five species or fewer: widely occurring in tropical Africa, Asia, Australia, and South America (introduced elsewhere); one species in China.

A single species, *Nelsonia canescens*, is sometimes recognized (e.g., A. B. M. E. Hossain, Willdenowia 14: 397–403. 1984), but Vollesen (e.g., K. Vollesen in J. H. Seyani & A. C. Chikuni, eds., Proceedings of the XIII Plenary Meeting of AETFAT, Zomba, Malawi, 2–11 Apr 1991, 315–325. 1994) presented arguments for recognizing up to five species.

**1. Nelsonia canescens** (Lamarck) Sprengel, Syst. Veg. 1: 42. 1824.

## 瘤子草 liu zi cao

Justicia canescens Lamarck, Tabl. Encycl. 1: 41. 1791.

Herbs 10–20 cm tall, annual, creeping, sprawling, prostrate, or decumbent. Stems subterete, villous, often rooting at nodes. Petiole 0.2–3(-4) cm, villous; leaf blade elliptic to ovate, 1– $2.2 \times 0.4$ –1.2 cm but basal ones sometimes 6– $12 \times 3.5$ –5 cm, both surfaces villous, secondary veins 3–7 on each side of midvein, base cuneate, margin entire, apex acute. Spikes 1.5–4 cm; bracts elliptic, 6– $7.5 \times 3$ –4 mm, 5–7-veined. Calyx abaxial lobe ca.  $2 \times 0.6$  mm, apex 2-lobed; adaxial lobe ca.  $3 \times 1$  mm; lateral lobes ca.  $2 \times 0.5$  mm. Corolla bluish purple or white, externally glabrous; tube cylindric for ca. 1.5 mm, contracted near midpoint then expanded into throat; lower lip ca. 2.3 mm; upper lip ca. 2 mm. Stamens inserted at base of throat; filaments ca. 0.5 mm, glabrous. Ovary glabrous; ovules 4–8 per locule. Capsule ca.  $5 \times 2$  mm, 8–16-seeded. Seeds broadly ellipsoid, granulate. Fl. Oct–Mar, fr. Mar–May.  $2n = 34 + \beta$ , 36.

Wet places, open forests; 400–2000 m. Guangxi, Yunnan [Bhutan, Cambodia, India, Indonesia, Laos, Malaysia, Myanmar, Nepal, Philippines, Thailand, Vietnam; Africa, Madagascar].