

61. ZIZIPHORA Linnaeus, Sp. Pl. 1: 21. 1753.

新塔花属 xin ta hua shu

Plants annual or perennial, herbaceous or subshrubby. Leaves short petiolate or sessile; leaf blade abaxially glandular. Verticillasters scattered in leaf axils or crowded in a terminal capitulum; floral leaves as large as stem leaves or reduced. Calyx narrowly cylindrical, straight to slightly curved, 13-veined, villous annulate at throat, obscurely 2-lipped, upper lip 3-toothed, lower lip 2-toothed; teeth subequal, close together, rarely divergent following anthesis. Corolla limb 2-lipped; upper lip straight, margin entire, apex emarginate; lower lip spreading, 3-lobed, middle lobe narrower than suborbicular lateral lobes, apex emarginate. Anterior stamens fertile, reaching upper corolla lip, posterior stamens rudimentary, short, or absent; anther cells linear, 2 or only 1 developed, the other reduced to an appendage or absent. Style apex unequally 2-cleft, posterior lobe short. Nutlets ovoid, smooth.

About 25–30 species: Africa, Asia, Europe; four species in China.

- 1a. Annual herbs; verticillasters mostly axillary, not crowded in a capitulum 4. *Z. tenuior*
- 1b. Perennial subshrubs; verticillasters crowded in a terminal capitulum.
 - 2a. Calyx with dense short hairs less than 1/2 as long as calyx width 3. *Z. bungeana*
 - 2b. Calyx with dense long hairs nearly as long as to longer than calyx width.
 - 3a. Capitulum mostly semiglobose to subglobose, less than 2 cm in diam.; pedicels ca. 1.5 mm; calyx dark purple, densely hairy 2. *Z. tomentosa*
 - 3b. Capitulum mostly globose, 1.2–2.8 cm in diam.; pedicels short; calyx green or purplish, sparsely hairy 1. *Z. pamiroalaica*

1. *Ziziphora pamiroalaica* Juzepczuk ex Nevski, Trudy Bot. Inst. Akad. Nauk SSSR, Ser. 1, Fl. Sist. Vyss. Rast. 4: 328. 1937.

新疆新塔花 nan jiang xin ta hua

Subshrubs aromatic. Roots robust, woody, twisted. Stems numerous from woody base, reddish, slender or robust, ascending or prostrate, flexuous, 7–30 cm, with short, sparse, retrorse, slightly rigid hairs. Petiole to 3 mm; leaf blade oblong-ovate to subcircular, 2–15×1.7–7 mm, folded, pubescent, conspicuously glandular, base attenuate to petiole, margin entire or 1- or 2-denticulate, apex obtuse to subacute. Capitula globose, 1.2–2.8 cm in diam., compact; floral leaves not longer than calyx, reflexed. Pedicel short. Calyx green or purplish, 4–6 mm, with long, dense, flaccid white hairs as long as to longer than calyx width. Corolla rose, tube slightly exerted, limb large. Stamens much exerted; anthers purple (specimens not seen).

Gravelly areas, valleys, gorges. Xinjiang [Tajikistan].

2. *Ziziphora tomentosa* Juzepczuk, Fl. URSS 21: 667. 1954.

天山新塔花 tian shan xin ta hua

Subshrubs. Roots robust, woody. Stems numerous, ascending or flexuous patent, rarely suberect, 15–30 cm, retrorse pubescent, base robust, woody. Leaves oblong-ovate to ovate, 8–15(–20)×2–9 mm, sparsely pubescent or subglabrous, conspicuously glandular, base cuneate or attenuate to petioles, margin entire or conspicuously 1–4-serrate, apex obtuse to acute. Capitula semiglobose to subglobose, less than 2 cm in diam; floral leaves reduced, ciliate. Pedicel ca. 1.5 mm. Calyx dark purple, tubular, 5–7 mm, with spreading, long white hairs shorter than to as long as calyx width; teeth subequal, narrowly lanceolate. Corolla purplish or purple, ca. 9 mm, with rigid short hairs; tube slightly exerted, with long hairs inside. Fertile stamens 2, posterior stamens absent. Fl. Jul-Aug.

Grassy hillsides; 300–2100 m. Xinjiang [Kyrgyzstan].

3. *Ziziphora bungeana* Juzepczuk, Fl. URSS 21: 664. 1954.

新塔花 xin ta hua

Subshrubs aromatic. Roots woody. Stems numerous, obliquely ascending to suberect, 12–30 cm, base woody, branched, densely retrorse pubescent especially at apex. Petiole pubescent; leaves narrowly lanceolate to ovate-lanceolate, rarely ovate, 5–15×1.5–6 mm, subglabrous or pubescent, conspicuously glandular, base cuneate to attenuate, margin entire, apex acute to slightly obtuse. Verticillasters crowded in globose or semiglobose terminal capitula; floral leaves reduced, mostly ascending or horizontal. Pedicel 1–3 mm. Calyx tubular, 5(–7) mm, obscurely glandular; teeth subequal, acute. Corolla rose, ca. 8 mm, tube pubescent, lateral lobes circular. Fertile stamens 2, posterior stamens short or absent. Fl. Aug-Sep.

Gravelly hillsides, semidesert areas, sandy beaches; 700–1100 m. Xinjiang [Kazakhstan, Kyrgyzstan, Mongolia, Russia, Tajikistan, Turkmenistan, Uzbekistan].

4. *Ziziphora tenuior* Linnaeus Sp. Pl. 1: 21. 1753.

小新塔花 xiao xin ta hua

Herbs annual. Stems slender, erect, 5–15(–25) cm, retrorse pubescent. Leaves linear-lanceolate to lanceolate, 0.7–1.5(–2.5) cm×1–4 mm, glabrous or finely strigose, obscurely glandular, base attenuate to petioles, margin entire, ± ciliate, apex acuminate. Verticillasters 2–6-flowered, lax or compact, in false spikes 2–11(–15) cm; floral leaves much longer than flowers, rarely as long apically, margin ciliate. Pedicel 1.5–4 mm. Calyx subtubular, slightly curved downward, 5–7 mm, base saccate in fruit, spreading hirsute or hirtellous, teeth ovate-triangular. Corolla ca. 1 cm, tube slightly exerted. Fertile stamens 2, included; anthers with an ovate, downwardly directed appendage. Fl. Aug.

Hillsides, gravelly areas, meadows, semidesert areas. Xinjiang [Kazakhstan, Kyrgyzstan, Russia, Tajikistan, Turkmenistan, Uzbekistan; SW Asia, Europe].

