
扭连钱属 *niu lian qian shu*

*Phyllophyton* Kudô

Herbs perennial, villous, rhizomatous or stoloniferous. Stems erect or ascending. Leaves widely spaced, smaller or absent basally, overlapping upward, sessile or sub sessile; leaf blade subcircular to re niform-ovate, papery. Verticillasters apical, obscured by upper leaves; bracts small, linear-subulate. Calyx tubular, straight or slightly curved, 15-veined, tube villous annulate inside, ± 2-lipped, upper lip 3-toothed, lower lip 2-toothed. Corolla tubular, gradually dilated at apex, exserted, usually resupinate, 2-lipped; upper lip (apparent lower lip when corolla resupinate) straight, 2-lobed; lower lip (apparent upper lip when corolla resupinate) 3-lobed, middle lobe slightly cuculate, lateral lobes oblong to oblong-ovate. Stamens 4, didynamous, anterior 2 (posterior when corolla resupinate) shorter, included, posterior 2 sometimes long exserted; anther cells 2, divergent. Ovary glabrous. Style slender, apex 2-cleft. Nutlets oblong-ovoid, smooth, base small unobtuse. About five species: China, India; all in China.

1a. Corolla not resupinate; plants brown lanate

1b. Corolla resupinate; plants villous, hirsute or tomentose.

2a. Calyx teeth ovate to ovate-triangular; plants white villous. Calyx apex pilose; lobes of lower lip of corolla oblong

3a. Calyx glabrous; lobes of lower lip of corolla circular

3b. Calyx teeth lanceolate to triangular; plants hirsute or tomentose.

4a. Corolla 2-lipped, bluish, 1.5–1.7 cm; posterior stamens exserted

4b. Corolla regular, white, 1.9–2.2 cm; stamens included


扭连钱 *pa li niu lian qian*


Herbs perennial, brown lanate throughout. Rhizomes trailing. Stems erect, 4–10 cm. Upper leaves overlapping, circular, 1.5–2 cm in diam., margin crenate. Cymes axillary, sessile, fewflowered, shorter than leaves; bracts small. Calyx ca. 9 mm, flaccid tomentose, tube villous inside; upper lip with 3 wide short teeth. Corolla ca. 1.6 cm; tube straight, slightly dilated at throat. Stamens included or slightly exserted. Nutlets linear-ovoblong, ca. 2.8 mm, smooth.

- Moraines; 5000 m. Xizang (Yadong Xian).


扭连钱 *niu lian qian*

*Nepeta complanata* Dunn, Notes Roy. Bot. Gard. Edinburgh 8: 122. 1913; *Dracocephalum rockii* Diels; *Glechoma complanata* (Dunn) Turrill; *Phyllophyton complanatum* (Dunn) Kudô; *Pseudolophanthus complanatus* (Dunn) Levin

Rhizomes woody, brown-purple, branched. Stems ascending or subprostrate, much branched, apex white sericeous-villous, finely glandular, base pubescent, puberulent. Petiole short or obsolete; blade of mid cauline leaves circular to reniform, 1.5–2.2–2.7 cm, adaxially corrugate, densely white sericeous-villous, abaxially yellowish glandular, base cuneate to broadly cuneate, margin crenate, ciliate, apex rounded to subtuse, veins spreading white villous. Cymes 2- or 3-flowered; peduncle ca. 1.5 mm; bracteoles subulate or subtriangle.

- Crevices of weathered rocks, stony alluvial fans; 4300–5000 m. Qinghai, Sichuan, Xizang, Yunnan.


褪色扭连钱 *tui se niu lian qian*

*Nepeta decolorans* Hemsley, Hooker's Icon. Pl. 25: t. 2470. 1896; *Glechoma decolorans* (Hemsley) Turrill; *Phyllophyton decolorans* (Hemsley) Kudô; *Pseudolophanthus decolorans* (Hemsley) Levin.

Rhizomes woody, brown-purple, branched. Stems ascending or subprostrate, much branched, apex white sericeous-villous, finely glandular, base pubescent, puberulent. Petiole short or obsolete; blade of mid cauline leaves circular to reniform, 1.5–2.2–2.7 cm, adaxially corrugate, densely white sericeous-villous, abaxially yellowish glandular, base cuneate to broadly cuneate, margin crenate, ciliate, apex rounded to subtuse, veins spreading white villous. Cymes 2- or 3-flowered; peduncle ca. 1.5 mm; bracteoles subulate or subtriangle.

- Stony sandy slopes, valleys; 4800–5000 m. Xizang.


雪地扭连钱 *xue di niu lian qian*

Herbs perennial, hirsute and glandular throughout. Stems 10–15 cm. Leaves sessile or subsessile; leaf blade circular, or circular-ovate to subreniform, 1.5–2.2×1–2.4 cm, base rounded to subcordate, margin crenate, apex rounded. Cymes sessile upward; peduncle 2–5 mm at mid inflorescence; floral leaves shorter than to almost as long as peduncle; bracts small, linear-subulate. Calyx dilated at apex, very slightly incurved, 8–10 mm, pilose annulate inside; teeth triangular to lanceolate, narrow, 3–5 mm. Corolla bluish, resupinate, 1.5–1.7 cm; tube exserted, gradually dilated at apex; middle lobe of apparent upper lip denticulate; lateral lobes small, broadly ovate, lobes of apparent lower lip broadly ovate. Nutlets oblong-ovoid, smooth, brown.

- Stony alluvial fans; 5000–5300 m. Xizang.


圆叶扭连钱 yuan ye niu lian qian

Nepeta rotundifolia (Bentham) Bentham; N. tibetica Jaquemont ex Bentham; Phyllophyton tibeticum (Jaquemont ex Bentham) C. Y. Wu; Pseudolophanthus tibeticus (Jaquemont ex Bentham) Kuprianova.

Rhizomes slender. Stems ascending or prostrate, 7.5–15 cm, much branched, tomentose. Petiole 4–8.3 mm; leaf blade circular or flabellate, 1.2–2.5 cm, ± leathery, base truncate-cuneate to cuneate, margin crenate, apex rounded, corrugate, pubescent-lanate. Cymes axillary, few flowered, shorter than leaves; bracts filiform, shorter than pedicels. Calyx ca. 1.2 cm, slightly incurved, flaccid villous; teeth subequal, lanceolate to subulate, shorter than calyx tube. Corolla white, ca. 1.8 cm, erect, throat dilated, funnelform, limb small, regular. Nutlets linear-oblong, ca. 6 mm, smooth.

Stony alluvial fans; 5300 m. Xizang [India].