

**51. CAMPYLANDRA** Baker, J. Linn. Soc., Bot. 14: 582. 1875.

开口箭属 kai kou jian shu

Liang Songyun (梁松筠 Liang Song-jun); Minoru N. Tamura

*Tilcusta* Rafinesque.

Herbs perennial, rhizomatous, monopodial. Rhizome ascending or less often creeping, thick, stout, sometimes slightly woody. Stem very short or sometimes slightly elongate. Leaves basal or on short stem, usually distichous equitant, sometimes spaced, basally distinctly petiolate or not; leaf blade lorate to ovate-elliptic. Scape axillary. Inflorescence a terminal spike, several to many flowered, sometimes with several sterile bracts apically; fertile bracts lanceolate to ovate, often longer than flowers, sometimes shorter. Perianth segments 6, connate into a tube for 1/2–2/3 their length, fleshy, sometimes with a ringlike, fleshy appendage in throat; lobes often spreading, sometimes incurved, sometimes fimbriate at margin. Stamens 6; filaments proximally adnate to perianth tube, free part short to long; anthers positioned as high as or higher than stigma, dorsifixed. Ovary 3-loculed; ovules 2–4 per locule. Style 1, to 1 (–3.5) mm; stigma small, 3-lobed. Fruit a berry, 1–3-seeded.

Sixteen species: Bhutan, China, India, Nepal, Sikkim; 16 species (13 endemic) in China.

- 1a. Perianth throat with a cushionlike, ringed, fleshy appendage.
  - 2a. Flower subtended by 2 bracts; free part of filaments 1.5–2.5 mm.
    - 3a. Perianth lobes ca. 5 mm, smooth abaxially; filaments 2–2.5 mm ..... 15. *C. annulata*
    - 3b. Perianth lobes 6–8 mm, densely verruculose abaxially; filaments 1.5–2 mm ..... 16. *C. verruculosa*
  - 2a. Flower subtended by 1 bract; free part of filaments less than 1 mm.
    - 4a. Perianth lobes entire at margin ..... 12. *C. urotepala*
    - 4b. Perianth lobes erose at margin.
      - 5a. Leaves 2–3.5 cm wide; perianth tube with brown dots adaxially ..... 13. *C. tui*
      - 5b. Leaves 0.4–1.2 cm wide; perianth tube without brown dots adaxially ..... 14. *C. lichuanensis*
- 1b. Perianth throat without a cushionlike appendage, but sometimes with a thin ring formed from by fusion of widened filaments.
  - 6a. Leaves sessile, leaf blade lorate, apex long acuminate.
    - 7a. Perianth tubular-campanulate, 5–5.5 mm; fertile bracts longer than flowers, margin denticulate ..... 10. *C. ensifolia*
    - 7b. Perianth subcampanulate, 6.5–8 mm; fertile bracts shorter than flowers, margin entire ..... 11. *C. jinshanensis*
  - 6b. Leaves gradually narrowed basally into a distinct or indistinct petiole, leaf blade varying in shape, apex acute or acuminate.
    - 8a. Rhizome stemlike, elongate, nodes spaced; leaves cauline, slightly spaced.
      - 9a. Spike with several sterile bracts apically ..... 1. *C. wattii*
      - 9b. Spike without sterile bracts apically ..... 2. *C. emeiensis*
    - 8b. Rhizome short or slightly elongate, nodes dense (sometimes spaced in *C. chinensis*); leaves basal or nearly so, usually crowded.
      - 10a. Bracts and perianth lobes fimbriate at margin ..... 9. *C. fimbriata*
      - 10b. Bracts and perianth lobes not fimbriate at margin.
        - 11a. Widened part of filaments denticulate at margin ..... 3. *C. aurantiaca*
        - 11b. Widened part of filaments entire at margin.
          - 12a. Anther connective protruding from locules, recurved, ca. 1.5 mm ..... 4. *C. liangshanensis*
          - 12b. Anther connective included.
            - 13a. Leaves crisped at margin; bracts in proximal 1/2 of spike usually with 1 or 2 teeth at middle of margin ..... 5. *C. yunnanensis*
            - 13b. Leaves not crisped at margin; bracts without teeth at margin.
              - 14a. Perianth tubular, 7–11 mm ..... 6. *C. delavayi*
              - 14b. Perianth campanulate, 4.5–7.5 mm.
                - 15a. Peduncle 1–6(–15) mm; perianth 5–7 mm ..... 7. *C. chinensis*
                - 15b. Peduncle 15–40 mm; perianth 4.5–5 mm ..... 8. *C. longipedunculata*

**1. *Campylandra wattii*** C. B. Clarke, J. Linn. Soc., Bot. 25: 78. 1890. Clarke) J. D. Hooker.

弯蕊开口箭 wan rui kai kou jian

*Campylandra cauliflora* Chun; *C. longibracteata* F. T. Wang & Tang; *Tupistra tonkinensis* Baillon; *T. wattii* (C. B.

Rhizome yellow-brown when dried, stemlike, elongate, terete, ± curved, 0.8–1.2 cm thick; nodes spaced. Stem elongate. Leaves 3–10, spaced; petiole 3–9 cm, basally widened and clasping; leaf blade ovate-elliptic to elliptic-lanceolate, 6.5–20 × 3–7 cm, papery. Spike 2.5–6 × 1–1.5 cm, several to many

flowered, with several sterile bracts apically; peduncle 1.5–2.5 cm; fertile bracts lanceolate, 1.2–1.8(–5) cm × 2–4 mm. Perianth tube 3–5 mm; lobes red-brown or yellowish green, broadly ovate, 3.5–4 × 2–4 mm, fleshy. Filaments proximally widened and adnate to perianth tube, free part incurved, 1.5–2 mm. Ovary globose. Style inconspicuous; stigma 3-lobed. Berry red at maturity, globose, 0.9–1.1 cm in diam. Fl. Feb–May, fr. Jan–Apr of following year.  $2n = 38^*$ .

Moist places in dense forests, hillsides along valleys or streams; 800–2800 m. Guangdong, Guangxi, Guizhou, Sichuan, Yunnan [Bhutan, India].

**2. *Campylandra emeiensis*** (Z. Y. Zhu) M. N. Tamura et al., *Novon* 10: 159. 2000.

峨眉开口箭 e mei kai kou jian

*Tupistra emeiensis* Z. Y. Zhu, *Acta Bot. Yunnan.* 4: 271. 1982.

Rhizome stemlike, elongate, to 24–32 cm × 2–4 mm; nodes spaced. Stem elongate. Leaves 5 or 6, spaced; petiole 2–2.5 cm, basally widened and clasping; leaf blade subelliptic or ovate, 5–6.5 × 2.5–3.5 cm, papery or subleathery. Spike 4–5 cm, 6–9-flowered, without sterile bracts apically; peduncle ca. 1 cm; fertile bracts elliptic-ovate or elliptic-lanceolate, 6–8 × ca. 2.5 mm. Perianth yellow-green; tube ca. 3 mm, throat with a thin, undulate-crenate ring of connate, widened filament bases; lobes narrowly ovate-oblong, 3–4 × ca. 2 mm. Filaments with incurved free part ca. 1 mm. Ovary obovoid-globose. Style inconspicuous; stigma 3-lobed. Fl. Jun–Jul.

• Bamboo forests, moist places in thickets, hillsides along valleys or streams; 1800–2500 m. C Sichuan (Emei Shan).

**3. *Campylandra aurantiaca*** Baker, *J. Linn. Soc., Bot.* 14: 582. 1875.

橙花开口箭 cheng hua kai kou jian

Rhizome ascending, short, 1.2–2 cm thick; nodes dense. Leaves 4–6, basal, slightly distichous equitant, shortly petiolate; leaf blade lanceolate or linear, 18–60 × 2–6 cm, subleathery. Spike 2.5–4 cm, densely many flowered, with several sterile bracts apically; peduncle 1–2 cm; fertile bracts lanceolate, 1.5–3 cm × 5–8 mm, margin denticulate. Perianth campanulate, 0.8–1.2 cm; tube 5–7 mm; lobes yellow or orange, deltoid-ovate, 3–5 × 2–4 mm, fleshy. Filaments proximally widened and adnate to perianth tube, widened part denticulate at margin, free part very short. Ovary ovoid-globose, ca. 2 mm in diam. Style distinct, ca. 1 mm; stigma 3-lobed. Fl. Apr–May.  $2n = 38^*$ .

Dense forests, mixed forests along valleys, shady rocky slopes; 1800–2900 m. S Xizang, NW Yunnan [India, Nepal, Sikkim].

**4. *Campylandra liangshanensis*** (Z. Y. Zhu) M. N. Tamura et al., *Novon* 10: 159. 2000.

凉山开口箭 liang shan kai kou jian

*Tupistra liangshanensis* Z. Y. Zhu in Z. Y. Zhu & J. L. Zhang, *Acta Phytotax. Sin.* 19: 521. 1981.

Rhizome terete, ca. 3 cm thick, stout; nodes dense. Leaves

5 or 6, basal, slightly distichous equitant; petiole 8–12 cm; leaf blade narrowly elliptic to elliptic-lanceolate, ca. 22 × 7–12 cm. Spike 5–6 × 2–3 cm, densely many flowered, with several sterile bracts apically; peduncle 1–3 cm; fertile bracts 2 per flower, ovate-lanceolate, 1–1.7 cm × 3–7 mm. Perianth subcampanulate, 8–11 mm; tube 4–6 mm; lobes yellowish white, suborbicular or broadly ovate, 4–5 × 5–6 mm, fleshy. Filaments proximally widened and adnate to perianth tube, widened part entire, free part 1–1.5 mm; anther connective protruding from locules, recurved, ca. 1.5 mm. Ovary globose, ca. 2 mm in diam. Style 0.5–1 mm or inconspicuous; stigma white, 3-lobed. Fl. Nov.

• Moist places in thickets along valleys or streams; ca. 2500 m. SW Sichuan (Puge Xian).

**5. *Campylandra yunnanensis*** (F. T. Wang & S. Yun Liang) M. N. Tamura et al., *Novon* 10: 160. 2000.

云南开口箭 yun nan kai kou jian

*Tupistra yunnanensis* F. T. Wang & S. Yun Liang in F. T. Wang & Tang, *Fl. Reipubl. Popularis Sin.* 15: 249. 1978.

Rhizome ascending, yellow-brown, terete, 1–2.5 cm thick, stout; nodes dense. Leaves 3–5, basal, nearly distichous equitant; petiole indistinct; leaf blade lorate-lanceolate, 40–95 × 3–5.5 cm, margin crisped, apex acuminate. Spike 4.5–11 cm, many flowered; peduncle 8–12 cm; fertile bracts lanceolate, 6.5–9 × 1.5–3 mm, those in proximal 1/2 of spike usually with 1 or 2 teeth at middle of margin. Perianth subcampanulate, 7–8 mm; tube 4.5–5 mm, throat with a thin ring of widened filaments; lobes white, deltoid-lanceolate, 2.5–3 mm, fleshy, apex cuspidate-acuminate. Filaments with very short free part. Ovary ovoid, 2–2.5 × ca. 2 mm. Style inconspicuous. Berry red at maturity, ovoid-globose, 0.9–1.4 cm × 7–9 mm. Fl. May, fr. Oct–Nov.  $2n = 38^*$ .

• Forests; 1200–2800 m. NE Yunnan.

**6. *Campylandra delavayi*** (Franchet) M. N. Tamura et al., *Novon* 10: 159. 2000.

筒花开口箭 tong hua kai kou jian

*Tupistra delavayi* Franchet, *Bull. Soc. Bot. France* 43: 40. 1896.

Rhizome brownish, terete, 1–1.5 cm thick, stout; nodes dense. Leaves 3 or 4, basal, slightly distichous equitant; petiole 8–12 cm; leaf blade lorate-lanceolate, 25–45 × 5–9 cm, subleathery. Spike 5–6 × 1.5–1.7 cm, densely many flowered; peduncle 4.5–10 cm; fertile bracts white or pale brown, ovate to deltoid-lanceolate, 4–7 × 4–5 mm, membranous, margin not fimbriate. Perianth yellow, tubular-campanulate, 7–11 mm, fleshy; tube 4–6 mm; lobes ovate or suborbicular, 2–3 × 2.5–3 mm. Ovary oblong-ovoid, ca. 4.5 mm. Style usually very short or inconspicuous; stigma 3-lobed. Berry purple-red at maturity, subglobose, 6–10 mm in diam. Fl. Apr, fr. Aug.  $2n = 38^*$ .

• Moist places in broad-leaved forests, thickets; 1000–1500 m. Guangxi, Guizhou, Hubei, Hunan, Sichuan, Yunnan.

**7. *Campylandra chinensis*** (Baker) M. N. Tamura et al., *Novon* 10: 159. 2000.

开口箭 kai kou jian

*Tupistra chinensis* Baker, Hooker's Icon. Pl. 19: t. 1867. 1889; *Campylandra kwangtungensis* Dandy; *C. pachynema* F. T. Wang & Tang; *C. viridiflora* (Franchet) Handel-Mazzetti; *C. watanabei* (Hayata) Dandy; *Rohdea japonica* (Thunberg) Roth var. *watanabei* (Hayata) S. S. Ying; *R. watanabei* Hayata; *T. chlorantha* Baillon; *T. fargesii* Baillon; *T. heensis* Y. Wan & X. H. Lu; *T. kwangtungensis* S. S. Ying; *T. lorifolia* Franchet; *T. sparsiflora* S. C. Chen & Y. T. Ma; *T. viridiflora* Franchet.

Rhizome slightly elongate, terete, 1–1.5 cm thick. Leaves 4–8(–12), basal, distichous equitant; petiole 3–8 cm, usually conduplicate; leaf blade linear-lanceolate to oblanceolate, 15–65 × 1.5–9.5 cm. Spike 2.5–14 cm, with several sterile bracts apically; peduncle 1–6(–15) cm; fertile bracts green, 4–7 mm. Perianth campanulate, 5–7 mm; tube 2–2.5 mm; lobes ovate, 3–5 × 2–4 mm. Filaments proximally widened and adnate to perianth tube, widened part sometimes connate into a thin ring in perianth tube or throat, apical part incurved, 1–2 mm. Ovary subglobose, 2–2.5 mm in diam. Style to 1 mm; stigma 3-lobed. Berries purple-red at maturity, globose, 8–10 mm in diam. Fl. Apr–Jun, fr. Sep–Nov.  $2n = 38^*$ .

• Moist places in forests, hillsides along streams; 600–3000 m. Anhui, Fujian, Guangdong, Guangxi, Henan, Hubei, Hunan, Jiangxi, Shaanxi, Sichuan, Taiwan, Yunnan.

**8. *Campylandra longipedunculata*** (F. T. Wang & S. Yun Liang) M. N. Tamura et al., Novon 10: 160. 2000.

长梗开口箭 chang geng kai kou jian

*Tupistra longipedunculata* F. T. Wang & S. Yun Liang in F. T. Wang & Tang, Fl. Reipubl. Popularis Sin. 15: 249. 1978.

Rhizome yellow-brown, short, terete, 1.5–1.7 cm thick; nodes dense. Leaves 3–5, basal, distichous equitant; petiole 5–12 cm; leaf blade usually linear-oblanceolate, 40–80 × 3–6.5 cm, papery or subleathery. Spike 5.5–8 × 1–1.5 cm, densely many flowered; peduncle 15–40 cm, much longer than spike; fertile bracts green, ovate, 3.5–5.5 × 2.5–3 mm, margin white. Perianth subcampanulate, 4.5–5 mm; tube 2.5–3 mm; lobes yellow, deltoid-ovate, 2–2.5 × 1.5–2.5 mm, fleshy. Filaments with very short free part. Ovary ovoid, ca. 3.5 mm. Style inconspicuous; stigma 3-lobed. Fl. Jun.  $2n = 38^*$ .

• Forests, hillsides along streams, shady limestone slopes; 500–1700 m. Yunnan.

**9. *Campylandra fimbriata*** (Handel-Mazzetti) M. N. Tamura et al., Novon 10: 159. 2000.

齿瓣开口箭 chi ban kai kou jian

*Tupistra fimbriata* Handel-Mazzetti, Anz. Akad. Wiss. Wien, Math.-Naturwiss. Kl. 59: 253. 1922; *T. fimbriata* var. *breviloba* H. Li & J. L. Huang.

Rhizome yellow-brown or green, terete, 0.6–1.5 cm thick; nodes dense. Leaves 3–6(–8), basal, nearly distichous equitant; petiole usually distinct, 3–5 cm; leaf blade linear-lanceolate or oblanceolate, 30–65 × 3.5–6.5 cm, margin crisped. Spike 2–6 × 1–1.8 cm, densely many flowered; peduncle 6–15(–25) cm; fertile bracts pale green or pale brown, membranous, margin

white, fimbriate. Perianth campanulate, 6–8 mm; tube 3–6 mm; lobes green, broadly ovate, 2–3 × 3–3.5 mm, fleshy, margin white, membranous, irregularly dentate or fimbriate. Filaments with suberect free part 2–3 mm. Ovary ovoid-globose, ca. 2 mm in diam. Style 1–3.5 mm; stigma 3-lobed. Fl. Apr–May.  $2n = 38^*$ .

Dense forests, broad-leaved forests along ravines, shady rocky slopes; 1200–2900 m. S Xizang, NW Yunnan [India, Nepal].

**10. *Campylandra ensifolia*** (F. T. Wang & Tang) M. N. Tamura et al., Novon 10: 159. 2000.

剑叶开口箭 jian ye kai kou jian

*Tupistra ensifolia* F. T. Wang & Tang, Bull. Fan Mem. Inst. Biol. 7: 86. 1936.

Rhizome brown or green, stemlike, elongate, terete; nodes spaced. Stem elongate, to 10 cm; nodes many. Leaves many, cauline, distichous, sessile, lorate, 35–50 cm × 5–12 mm. Spike 4–5.5 cm, densely many flowered, with several sterile bracts apically; peduncle 4–5 cm; fertile bracts green or pale brown, 7–12 mm. Perianth tubular-campanulate, 5–5.5 mm; tube 2–2.5 mm; lobes spreading, brownish or green, ovate, 2–2.5 × 1.5–2 mm, fleshy, margin white, membranous, erose. Filaments basally widened and corrugated, free part very short. Ovary ovoid. Style inconspicuous. Berries red-black at maturity, subglobose, 5–8 mm in diam. Fl. Jun, fr. Oct.  $2n = 38^*$ .

• Broad-leaved forests, shady rocky slopes; 1000–3200 m. Yunnan.

**11. *Campylandra jinshanensis*** (Z. L. Yang & X. G. Luo) M. N. Tamura et al., Novon 10: 159. 2000.

金山开口箭 jin shan kai kou jian

*Tupistra jinshanensis* Z. L. Yang & X. G. Luo, Acta Bot. Yunnan. 6: 389. 1984.

Rhizome yellowish brown, slightly curved, 1–3 cm thick, stout; nodes dense. Stem short. Leaves many, distichous equitant, sessile, lorate, 30–45 × 1.2–2 cm. Spike 2–4 × ca. 1.5 cm, densely many flowered, sometimes with several sterile bracts apically; peduncle ca. 4 cm; fertile bracts green-white, 3–4 × 1.5–2.5 mm, margin membranous and entire. Perianth subcampanulate, 6.5–8 mm, fleshy; tube 2.5–3 mm; lobes ovate-lanceolate or broadly ovate, 4–5 × 3–4 mm, margin white, membranous, entire, apex shortly cuspidate. Filaments basally widened and corrugated, free part incurved, ca. 2 mm. Ovary ovoid-globose, 2–3 mm in diam. Style less than 1 mm. Fl. Apr.

• Forests; ca. 1800 m. SE Sichuan (Nanchuan Xian).

**12. *Campylandra urotepala*** (Handel-Mazzetti) M. N. Tamura et al., Novon 10: 160. 2000.

尾萼开口箭 wei e kai kou jian

*Rohdea urotepala* Handel-Mazzetti, Anz. Akad. Wiss. Wien, Math.-Naturwiss. Kl. 57: 272. 1920; *Tupistra urotepala* (Handel-Mazzetti) F. T. Wang & Tang.

Rhizome slightly elongate, 1–1.5 cm thick, stout; nodes dense. Leaves 5–7, basal, slightly distichous equitant or sub-

tufted, sessile, usually narrowly oblong-lanceolate, gradually narrowed toward base, 30–45 × 2–4 cm, margin crisped. Spike 3–4.5 × 1–1.5 cm; peduncle 1–6 cm; fertile bracts white or greenish, ovate, 3.5–6.5 × 3.5–5 mm, membranous. Perianth 5–10 mm, with a cushionlike, ringed, fleshy, smooth appendage in throat; tube 2–5 mm; lobes spreading, yellow, deltoid-ovate, 3–5 × 3–4.5 mm, fleshy, margin thin, entire. Filaments very short; anthers 1–1.5 mm. Ovary ovoid, ca. 3 × 2 mm. Style ca. 1 mm; stigma 3-lobed. Fl. May–Jun.  $2n = 38^*$ .

- Forests, rocky wastelands; 1700–3000 m. SW Sichuan.

**13. *Campylandra tui*** (F. T. Wang & Tang) M. N. Tamura et al., Novon 10: 160. 2000.

碟花开口箭 die hua kai kou jian

*Rohdea tui* F. T. Wang & Tang, Bull. Fan Mem. Inst. Biol. 7: 284. 1937; *Tupistra tui* (F. T. Wang & Tang) F. T. Wang & S. Yun Liang.

Rhizome slightly elongate, terete, 0.8–1.3 cm thick; nodes dense. Leaves 4–6, basal or nearly so, nearly distichous equitant, sessile, usually linear-lanceolate, 25–50 × 2–3.5 cm. Spike 3–4.5 × 1–1.8 cm, densely many flowered; peduncle 6–15 cm; fertile bracts pale green, 2.5–4 × 2.5–3.5 mm, shorter than flowers, membranous. Perianth 4.5–5.5 mm, with a cushionlike, ringed, fleshy, papillose appendage in throat; tube adaxially brown spotted, 2–3 mm; lobes slightly spreading, yellow, ovate-deltoid, 2.5–3 × 2.5–3 mm, fleshy, margin white, membranous, erose. Filaments with very short free part. Ovary ovoid, 3.5–4 × 2–2.5 mm. Style very short; stigma scarcely 3-lobed, small. Fl. Jun.

- Forests, thickets; 1000–2500 m. S and W Sichuan.

**14. *Campylandra lichuanensis*** (Y. K. Yang et al.) M. N. Tamura et al., Novon 10: 160. 2000.

利川开口箭 li chuan kai kou jian

*Tupistra lichuanensis* Y. K. Yang et al., J. Wuhan Bot. Res. 9: 40. 1991.

Rhizome slightly curved, subterete, 1–2.5 cm thick, stout; nodes dense. Leaves (4–)6–9, nearly distichous equitant, sessile, strap-shaped, 24–35 × 0.4–1.2 cm, subleathery, base obviously dilated and clasping, apex acuminate. Spike 1–3.2 × 0.6–1.2 cm, densely (2–)8–14-flowered, usually with 3–7 sterile bracts apically; peduncle 1.7–10 cm; fertile bracts pale yellow, sometimes greenish, ovate to lanceolate, 2.5–5 × 0.7–1.2 mm, membranous. Perianth yellowish green, subcampanulate, fleshy, with a cushionlike, ringed, fleshy appendage in throat; tube without brown spots, 2–3.5 × 2–3 mm; lobes ± spreading, ovate-deltoid to ovate-elliptic, 2–3.5 × 2–2.5 mm, margin white, membranous, erose, apex usually caudate, rarely subobtusate. Filaments with free part 0.2–0.4 mm; anthers subovate, 1–1.4 mm. Ovary ovoid, 2–2.5 mm in diam. Style to 0.5 mm; stigma obtusely 3-angled, distinctly 3-lobed. Berries red at maturity, ovoid, 5–7 mm in diam. Fl. Apr.

- 1100–1500 m. SW Hubei (Lichuan Xian).

**15. *Campylandra annulata*** (H. Li & J. L. Huang) M. N. Ta-

mura et al., Novon 10: 159. 2000.

环花开口箭 huan hua kai kou jian

*Tupistra annulata* H. Li & J. L. Huang, Acta Bot. Yunnan., Suppl. 3: 51. 1990.

Rhizome terete, 2.5–3 cm thick; nodes dense. Leaves 6–8, basal or nearly so, slightly or scarcely distichous equitant, gradually narrowed into indistinct petiole; leaf blade oblanceolate-oblong, 15–40 × 2.5–4 cm. Spike ca. 5 cm, densely many flowered, with several sterile bracts apically; peduncle ca. 4 cm; fertile bracts 2 per flower, green, larger one 1.1–1.3 cm, smaller one 4–5 mm. Perianth green, subcampanulate, with a cushionlike, ringed, fleshy, smooth appendage in throat; tube 4–5 mm; lobes ovate-lanceolate, ca. 5 mm, apex incurved, acuminate-cuspidate. Filaments with free part 2–2.5 mm. Ovary globose, ca. 2.5 mm in diam. Style very short. Fl. Mar–May.  $2n = 38^*$ .

- Yunnan.

Described from a cultivated plant.

**16. *Campylandra verruculosa*** (Q. H. Chen) M. N. Tamura et al., Novon 10: 160. 2000.

疣点开口箭 you dian kai kou jian

*Tupistra verruculosa* Q. H. Chen, Acta Phytotax. Sin. 25: 69. 1987.

Rhizome brown, terete, 1.5–2 cm thick; nodes dense. Leaves 5–12, basal or nearly so, distichous equitant; petiole 4–12 cm; leaf blade 21–40 × 6–8 cm. Spike 10–12 × 1.5–2 cm, densely many flowered; peduncle ca. 15 cm; fertile bracts 2 per flower, pale green, membranous, larger one 5–9 × 3–4 mm, smaller one 3–6 × 1–1.5 mm. Perianth pale yellow-green, subcampanulate, 8–11 mm, with a cushionlike, ringed, fleshy, sparsely papillose appendage in throat; tube 2–3 mm; lobes ovate, 6–8 × 4–5 mm, fleshy, abaxially densely verruculose, apex cuspidate. Filaments with free part 1.5–2 mm. Ovary globose, ca. 3 mm in diam. Style 0.5–1 mm, 3-angled; stigma 3-lobed. Fl. May.

- Forests on limestone slopes; ca. 700 m. C and S Guizhou (Pingtang Xian, Weng'an Xian).

