

168. THRIXSPERMUM Loureiro, Fl. Cochinch. 2: 516, 519. 1790.

白点兰属 bai dian lan shu

Chen Xinqi (陈心启 Chen Sing-chi); Jeffrey J. Wood

Herbs, epiphytic, lithophytic, or rarely terrestrial, monopodial, medium-sized. Stems ascending, climbing, or pendulous, either short with several closely spaced leaves, or long with many, well-spaced leaves. Leaves flat, never terete or laterally compressed, sometimes fleshy, base sheathing, jointed. Inflorescence lateral, axillary, racemose, long or short, few to many flowered, a few flowers opening at a time, flowering of many lowland species initiated by a sudden afternoon rainstorm; floral bracts either distichous and persistent on a flattened rachis or facing all directions on terete rachis. Flowers usually ephemeral, often fully open for only half a day, small to medium-sized, very variable, from a few millimeters to several centimeters in diam. Sepals and petals subsimilar; lip adnate at base to end of column foot, immovable, saccate but not truly spurred, usually with a partly hairy or papillose front wall callus, 3-lobed; lateral lobes erect; mid-lobe rather thick and fleshy. Column short, stout, sometimes winged, with a long foot; pollinia waxy, 4, appearing as 2 unequal masses, subglobose, attached by a common short and broad stipe to a solitary viscidium. Capsule long, slender.

About 100 species: Sri Lanka and the Himalayan region east to the Pacific islands, with an apparent center of distribution in Sumatra; 14 species (two endemic) in China.

- 1a. Floral bracts distichous on a ± flattened rachis.
 - 2a. Floral bracts ca. 5 mm apart from each other; rachis slender, shorter than 5 cm 12. *T. japonicum*
 - 2b. Floral bracts close, 1–3 mm apart from each other; rachis stout, longer than 5 cm.
 - 3a. Leaves ovate-lanceolate, base cordate, 2–2.5(–5) cm 13. *T. amplexicaule*
 - 3b. Leaves oblong, base narrowed, 6–24 cm 14. *T. centipeda*
- 1b. Floral bracts facing all directions (quaquaversal) on a terete rachis.
 - 4a. Plants pendulous or arcuate; stems 30–90 cm; inflorescence 1–2 cm.
 - 5a. Leaves linear-lanceolate or lorate, abruptly narrowed some distance from apex, acute; stems often branching 1. *T. subulatum*
 - 5b. Leaves oblong or elliptic, apex obtusely unequally bilobed or acute; stems simple.
 - 6a. Stems flaccid; leaves elliptic, only narrowed a slight distance from apex, acute, dorsally carinate, 5–7 × 2–2.7 cm 2. *T. pensile*
 - 6b. Stems not flaccid, stout; leaves oblong, obtusely unequally bilobed, 6–12 × 1.9–2.2 cm 3. *T. tsii*
 - 4b. Plants ascending; stems 2–3(–7) cm; inflorescence 3–8 cm.
 - 7a. Flowers well spaced, opening simultaneously, lasting several days.
 - 8a. Flowers white, often tinged with purplish or yellowish; lip with a basal callus; callus with a tuft of brownish yellowish hairs 4. *T. saruwatarii*
 - 8b. Flowers creamy yellow; lip without a basal callus, base with a tuft of purple hairs 5. *T. laurisilvaticum*
 - 7b. Flowers close, opening successively, lasting less than a day.
 - 9a. Sac of lip cylindrical, ca. 6 mm 6. *T. formosanum*
 - 9b. Sac of lip saccate or pouch-shaped, less than 4 mm.
 - 10a. Lip nearly triangular or rhombic in outline; mid-lobe with 2 or 3 tufts of white hairs.
 - 11a. Flowers yellow; mid-lobe of lip truncate at apex; disk with 2 conic calli and 3 tufts of white hairs 7. *T. merguense*
 - 11b. Flowers white; mid-lobe of lip slightly bilobed at apex; disk with a longitudinal hairy callus 8. *T. annamense*
 - 10b. Lip not triangular nor rhombic in outline; mid-lobe lacking hairs.
 - 12a. Lip with dense minute papillae adaxially; lateral lobes with white clavate cilia along apical margin; mid-lobe small, entire 9. *T. trichoglottis*
 - 12b. Lip (except fleshy ridges) glabrous adaxially; lateral lobes entire or denticulate at margins; mid-lobe irregularly dentate at margin.
 - 13a. Lateral lobes of lip entire; disk with a Y-shaped callus 10. *T. eximium*
 - 13b. Lateral lobes of lip denticulate at apical margin; disk with 2 tubelike calli 11. *T. fantasticum*

1. *ThrixspERMUM subulatum* (Blume) H. G. Reichenbach, Xenia Orchid. 2: 122. 1868.

subulata (Blume) Lindley; *Sarcochilus subulatus* (Blume) H. G. Reichenbach; *ThrixspERMUM falcilobum* Schlechter.

厚叶白点兰 hou ye bai dian lan

Dendrocolla subulata Blume, Bijdr. 291. 1825; *Aerides*

Stems pendulous, compressed, 30–50 cm, branching or unbranched. Leaves many, linear-lanceolate or lorate, 8–15 × 1–2 cm, leathery, thick, often conduplicate and V-shaped especi-

ally near base. Inflorescence ca. 1.5 cm, 1–3-flowered; rachis thickened toward apex; floral bracts not distichous, ovate-triangular, very small. Flowers lasting nearly a day, pale yellow, ca. 1.5 cm in diam.; lip white, usually tinged or marked with orange, disk golden yellow; pedicel and ovary green, 1–1.5 cm. Dorsal sepal subelliptic, 8–10 × 4–5 mm, obtuse or acute; lateral sepals slightly oblique, slightly wider. Petals oblong-obovate, ca. 9 × 4 mm, base contracted, apex obtuse; lip 6–7 × 7–9 mm, 3-lobed; lateral lobes erect, falcate, acute and recurved; mid-lobe fleshy, slightly retuse; disk with a long, furcate-tipped, white hairy, central callus. Column ca. 2 mm, foot 3–4 mm. Fl. Apr–May.

Epiphytic on tree trunks along streams; below 700 m. C and S Taiwan [Indonesia, Philippines].

2. *Thrixspermum pensile* Schlechter, Bot. Jahrb. Syst. 45(Beibl. 104): 59. 1911.

垂枝白点兰 *chui zhi bai dian lan*

Aporum pendulicaule (Hayata) Rauschert; *Dendrobium*

pendulicaule Hayata; *Thrixspermum pendulicaule* (Hayata) Schlechter.

Stems pendulous, compressed, 30–90(–200) cm, leafy throughout, internodes ca. 2 cm. Leaves elliptic, 5–7 × 2–2.7 cm, thick, slightly fleshy, conduplicate toward base, apex acute. Inflorescence 1–2 cm, few flowered; floral bracts persistent, not distichous, ovate-triangular, 2–3 mm. Flowers lasting only half a day, white, ca. 1.3 cm in diam.; sepals and petals often tinged with yellowish or greenish abaxially, lip spotted orange-yellow; pedicel and ovary 8–9 mm. Dorsal sepal elliptic-ovate, ca. 9 × 4–5 mm, concave, obtuse; lateral sepals slightly wider than dorsal sepal. Petals elliptic, ca. 9 × 3.5 mm; lip deltoid, saccate, ca. 6 × 9 mm, concave, 3-lobed; lateral lobes erect, triangular-falcate; mid-lobe very small, slightly fleshy, with a bilobed callus; disk with a linear callus near base. Column ca. 3 mm, foot ca. 3 mm. Capsule cylindrical, to 10 cm × ca. 5 mm. Fl. and fr. throughout year.

Epiphytic on tree trunks in lowland forests. S Taiwan [Indonesia, Malaysia (Sabah), Thailand].

3. *Thrixspermum tsii* W. H. Chen & Y. M. Shui, Brittonia 57: 55. 2005.

吉氏白点兰 *ji shi bai dian lan*

Stems arching or pendulous, stout, terete, slightly flattened, 30–40 cm, 5–6 mm wide; internodes 1.5–2.5 cm. Leaves distichous, thick and fleshy, oblong, 6–12 × 1.9–2.2 cm, unequally obtusely bilobed, sheathing and amplexicaul at base. Inflorescence racemose, extra-axillary, arching, 1–3-flowered; rachis flattened, 1.5–2.5 cm; floral bracts broadly triangular, 2.5–3 × 3.5–4 mm, lax and distichous, conduplicate-concave, acute, fleshy, persistent. Flowers lasting only 1 day, not opening widely, white, becoming yellowish, lip with a golden yellow disk, anther cap whitish yellow, glabrous; pedicel and ovary greenish, ca. 1.5 cm. Dorsal sepal elliptic, ca. 15 × 6 mm, 5-veined, obtuse; lateral sepals somewhat obliquely elliptic, 14–15 × ca. 6 mm, 5-veined, obtuse with a short tip. Petals oblong-ovate, 11–12 × ca. 6 mm, 5-veined, acute; lip slightly pouched, widely ellipsoid, ca. 8 × 12 mm; lateral lobes abruptly narrowed to an acute apex, slightly curved forward; mid-lobe elongating into a broadly ligulate blade, ca. 3 mm, ca. 1.5 mm high, fleshy, densely hairy, apex truncate, mucronate; disk with a single, narrow horizontal callus. Column short, foot ca. 3 mm; anther cap ca. 1.8 mm wide. Fl. May–Jun.

• Epiphytic on tree trunks and branches, lithophytic on rocks, in shrublands and secondary forests on limestone; 700–1500 m. Yunnan.

4. *Thrixspermum saruwatarii* (Hayata) Schlechter, Repert. Spec. Nov. Regni Veg. Beih. 4: 275. 1919.

长轴白点兰 *chang zhou bai dian lan*

Sarcochilus saruwatarii Hayata, Icon. Pl. Formosan. 6: 84. 1916.

Stems erect or ascending, ca. 2 cm. Leaves nearly basal, narrowly oblong or linear-oblong, 4–8 × 0.5–2 cm, leathery, acute, sometimes unequally bilobed. Inflorescence usually pendulous, 5–8 cm, laxly 3–8-flowered; rachis slightly flexuous

and slightly thickened; floral bracts not distichous, ovate-triangular, 2–3 mm, acute. Flowers opening simultaneously, lasting ca. 1 week, well spaced, white or rarely yellowish, sometimes tinged with purple, lip lateral lobes brownish striped, mid-lobe brownish orange, adaxially column foot with brown blotches; pedicel and ovary 4–6 mm. Dorsal sepal oblong, 7–8 × 3–5 mm, obtuse; lateral sepals slightly oblique, obovate, 7–8 × 3–5 mm, acute. Petals linear, falcate, 5–6 × ca. 2 mm, obtuse; lip small, base shallowly saccate, 3-lobed; lateral lobes erect, falcate, ca. 3 mm; mid-lobe triangular, very small, fleshy; disk with a basal callus; callus with a tuft of brownish yellowish hairs. Column less than 2 mm, foot ca. 1.5 mm. Fl. Mar–Apr.

• Epiphytic on tree trunks in forests; below 1200 m. C and S Taiwan.

5. *Thrixspermum laurisilvaticum* (Fukuyama) Garay, Bot. Mus. Leaflet. 23: 207. 1972.

黄花白点兰 huang hua bai dian lan

Sarcophilus laurisilvaticus Fukuyama, Bot. Mag. (Tokyo) 52: 246. 1938.

Stems ascending, usually less than 3 cm. Leaves nearly basal, elliptic to linear-oblong, sometimes falcate, 2–8 × 0.7–1.5 cm, acute. Inflorescence ascending to pendulous, 2–4 cm, laxly 2–4-flowered; peduncle and rachis ± flexuous, slender; floral bracts ovate, 2–3 mm. Flowers opening simultaneously, lasting several days, well spaced, creamy yellow or yellowish, sometimes with red spots on lip, lip mid-lobe reddish; pedicel and ovary 7–10 mm. Dorsal sepal elliptic, 6–8 × 4–5 mm, obtuse; lateral sepals obliquely ovate, 6–7 × 4–5 mm, obtuse or acute. Petals suboblong-spatulate, 6–7 × 2–3 mm, obtuse; lip saccate at base, margin 3-lobed; lateral lobes erect, oblong, falcate, 6–7 mm; mid-lobe fleshy, small, mucronate; disk without a callus, with a tuft of purple hairs. Column ca. 3 mm, foot ca. 4 mm. Fl. Apr–May.

Epiphytic on tree trunks in moist forests; 600–1200 m. N Fujian, W Hunan, E and N Taiwan [Japan, N Vietnam].

6. *Thrixspermum formosanum* (Hayata) Schlechter, Repert. Spec. Nov. Regni Veg. Beih. 4: 273. 1919.

台湾白点兰 tai wan bai dian lan

Sarcophilus formosanus Hayata, J. Coll. Sci. Imp. Univ. Tokyo 30(1): 336. 1911; *Dendrocolla pricei* Rolfe; *Pteroceras pricei* (Rolfe) Averyanov; *Thrixspermum pricei* (Rolfe) Schlechter; *T. sasaoi* Masamune.

Stems ascending, 1–2 cm, with several to many leaves. Leaves nearly basal, abaxially often spotted with purple, linear-lanceolate or narrowly oblong, usually 3–6 × 0.4–0.9 cm, slightly fleshy, acute, sometimes slightly bilobed. Inflorescence 4–6 cm; rachis short, slender; floral bracts dense, not distichous, broadly ovate-triangular, ca. 1 mm. Flowers fragrant, closely spaced, opening successively usually 1 or 2 at a time, lasting half a day, white, with brownish stripes on lip; pedicel and ovary 6–9 mm. Dorsal sepal oblong or elliptic, 5–7 × 2–3 mm, obtuse; lateral sepals obliquely obovate or ovate-elliptic, 5–7 × 3–4 mm, acute or obtuse. Petals falcate-oblong, 5–7 × 1.5–2.5

mm, obtuse or subtruncate; lip 4–5 mm, saccate at base, 3-lobed; lateral lobes erect, subovate, 2–3 mm, obtuse; mid-lobe inconspicuous; disk with long hairs and with a fleshy scalelike appendage; sac cylindrical, ca. 6 mm, shallowly bilobed at apex. Column ca. 2 mm. Fl. Feb–Mar.

Epiphytic on trees or branches in forests; 500–1500 m. C and S Taiwan [N Vietnam].

7. *Thrixspermum merguense* (J. D. Hooker) Kuntze, Revis. Gen. Pl. 2: 682. 1891.

三毛白点兰 san mao bai dian lan

Sarcophilus merguensis J. D. Hooker, Fl. Brit. India 6: 40. 1890; *S. kusukusensis* Hayata; *Thrixspermum kusukusense* (Hayata) Schlechter.

Stems 2–3 cm, with several leaves. Leaves nearly basal, narrowly oblong, 2–5 × 0.5–0.6 cm, fleshy, base contracted, apex obtuse and slightly bilobed. Inflorescence suberect or ascending, to 5 cm, few flowered; rachis slightly thickened distally; floral bracts not distichous, scalelike, ca. 2 mm. Flowers contiguous, opening successively, lasting nearly half a day, yellow, with red stripes on lateral lobes and orange-yellow on mid-lobe of lip. Dorsal sepal oblong or ovate-oblong, ca. 5 × 2–3 mm, obtuse; lateral sepals slightly oblique, similar to but slightly wider than dorsal sepal, obtuse. Petals obovate-oblong, 4–5 × 2–2.5 mm; lip triangular, ca. 3 × 5 mm, saccate at base, margin 3-lobed; lateral lobes erect, large, obtuse; mid-lobe ca. 1 × 1.5 mm, truncate; disk with 2 conic calli and 3 tufts of white hairs. Column ca. 2 mm, foot short. Fl. Jun–Nov.

Epiphytic on tree trunks in forests; below 700 m. C and S Taiwan [Indonesia, Malaysia, Myanmar, Philippines, Thailand, Vietnam].

8. *Thrixspermum annamense* (Guillaumin) Garay, Bot. Mus. Leaflet. 23: 206. 1972.

海台白点兰 hai tai bai dian lan

Ascochilus annamensis Guillaumin, Bull. Mus. Natl. Hist. Nat., sér. 2, 33: 333. 1961; *Thrixspermum austrosinense* Tang & F. T. Wang; *T. devolium* T. P. Lin & C. C. Hsu.

Stems 1–2 cm, 4- or 5-leaved. Leaves nearly basal, sometimes tinged with purple, narrowly oblong, 3–5 × 0.6–0.9 cm, leathery, acute and slightly bilobed. Inflorescence 6–9 cm, densely many flowered; peduncle with 2 or 3 sheaths; rachis 7–15 mm, slender, thicker distally; floral bracts persistent, ovate, ca. 1 mm, obtuse. Flowers fragrant, contiguous, opening successively, short-lived, white, small. Sepals similar, elliptic or ovate-elliptic, 5–6 × 3–3.3 mm, obtuse. Petals elliptic, ca. 5 × 3 mm, rounded; lip shallowly saccate, rhombic-triangular, ca. 5 × 6.5 mm, 3-lobed; lateral lobes erect, deltoid, rounded; mid-lobe nearly oblate, fleshy, abaxially carinate, adaxially densely hairy, slightly bilobed; disk with a longitudinal hairy callus. Column ca. 1 mm, foot ca. 1 mm. Fl. Apr–May.

Epiphytic on tree trunks in forests. S Hainan, C Taiwan [Thailand, Vietnam].

9. *Thrixspermum trichoglottis* (J. D. Hooker) Kuntze, Revis. Gen. Pl. 2: 682. 1891.

同色白点兰 tong se bai dian lan

Sarcochilus trichoglottis J. D. Hooker, Fl. Brit. India 6: 39. 1890.

Stems ascending, 3–7 cm, 3–4 mm in diam., with several nodes, many leaved, internodes 5–6 mm. Leaves 3–5.5 × 0.5–1 cm, leathery, obtuse and slightly unequally bilobed. Inflorescences 2 or 3, borne on lower part of stem, suberect, usually 3–4 cm, densely several flowered; peduncle ca. 1 mm in diam.; rachis 3–5 mm, slightly thickened; floral bracts persistent, densely arranged, ovate-lanceolate, 3–4 mm, acuminate. Flowers yellowish white, opening successively, not opening widely, short-lived; pedicel and ovary ca. 5 mm. Dorsal sepal elliptic, ca. 4 × 2.5 mm, obtuse; lateral sepals obliquely ovate, ca. 4 × 2.5 mm, obtuse. Petals elliptic, ca. 3.5 × 2 mm; lip 3-lobed, base with shallow sac, adaxially densely minutely papillate; lateral lobes erect, suborbicular, ca. 3 × 2 mm, apical margin with long clavate cilia; mid-lobe ca. 1 mm, thickened, ± conic-cucullate; disk with a clavate-linear callus extending from base to middle. Column ca. 2 mm, foot ca. 1 mm; anther cap subglobose, rounded. Fl. Mar.

Epiphytic on tree trunks in open forests; 700–800 m. S Yunnan [India (including Andaman Islands), Indonesia, Laos, Malaysia, Myanmar, Singapore, Thailand, Vietnam].

10. *Thrixspermum eximium* L. O. Williams, Bot. Mus. Leaflet 6: 84. 1938.

异色白点兰 yi se bai dian lan

Stems 1–2 cm, 4–7-leaved. Leaves nearly basal, lorate or narrowly elliptic, 4–7 × 0.8–1.3 cm, base slightly conduplicate, apex acute and unequally bilobed. Inflorescence arising from base of stem, erect, ca. 10 cm, few flowered; peduncle ca. 9 cm, slender; rachis ca. 1 cm, dilated; floral bracts ca. 1 mm. Flowers white, tinged with pink or brownish, opening successively, lasting only half a day; pedicel and ovary ca. 4 mm. Dorsal sepal elliptic, 5–6 × 3–4 mm, acute; lateral sepals suborbicular, ca. 5 × 5.5 mm. Petals subelliptic, ca. 5 × 4 mm, concave; lip ca. 5 mm, saccate at base, apical margin irregularly denticulate, 3-lobed; lateral lobes erect, nearly suborbicular, entire; mid-lobe wider and shorter, shallowly bilobed; disk with a channeled longitudinal central callus; callus furcate at apex, Y-shaped, with tufts of white hairs, with 2 ligulate smaller calli on either side. Column ca. 2.5 mm, foot short. Fl. Feb–Apr.

Epiphytic in mixed forests; 1000–1100 m. S Taiwan [Philippines].

11. *Thrixspermum fantasticum* L. O. Williams, Bot. Mus. Leaflet 6: 82. 1938.

金唇白点兰 jin chun bai dian lan

Thrixspermum neglectum Fukuyama.

Stems 1–4 cm, densely few to many leaved. Leaves narrowly elliptic to oblong, 2–5 × 0.8–1.5 cm, acute or slightly bilobed. Inflorescences several, 5–7 cm, several flowered; peduncle slender; rachis very short; floral bracts ovate-triangular, 1–2 mm. Flowers not opening widely, whitish, lip usually tinged with yellow; pedicel and ovary 2.5–4 mm. Dorsal sepal elliptic or obovate, 4–5.5 × 2.5–3 mm, base cuneate, apex

obtuse; lateral sepals slightly oblique, broadly elliptic, ca. 5 × 4 mm, obtuse. Petals similar to lateral sepals and smaller, base contracted, apex rounded; lip ca. 3 × 7 mm, base saccate, margin 3-lobed; lateral lobes erect, ca. 3 mm, apical margin denticulate; mid-lobe suborbicular, ca. 1 × 2 mm, base with 2 small ligulate appendages, margin ± denticulate; disk with 2 revolute tubelike calli ending in a tuft of yellow hairs. Column ca. 1 mm, foot ca. 1.5 mm. Fl. Apr–May.

Epiphytic on tree trunks in forests; 300–700 m. S Taiwan [Japan (Ryukyu Islands), Philippines].

12. *Thrixspermum japonicum* (Miquel) H. G. Reichenbach, Bot. Zeitung (Berlin) 36: 75. 1878.

小叶白点兰 xiao ye bai dian lan

Sarcochilus japonicus Miquel, Ann. Mus. Bot. Lugduno-Batavi 2: 206. 1866.

Stems pendulous, 2–13 cm, slender, with many nodes, densely many leaved. Leaves narrowly oblong or oblanceolate, 2–4 × 0.5–0.7 cm, leathery, obtuse and minutely bilobed. Inflorescences often 2 to many, opposite to leaves, 3–5 cm, laxly few flowered; peduncle slender, with 2 sheaths; rachis 3–5 mm, not thickened, floral bracts persistent, well spaced, ca. 5 mm apart from each other, distichous, broadly ovate-triangular, ca. 2.5 mm. Flowers pale yellow; pedicel and ovary ca. 5 mm. Dorsal sepal oblong, 5–7 × 2.5–3 mm, obtuse; lateral sepals ovate-lanceolate, 5–7 × 3–3.5 mm, obtuse. Petals narrowly oblong, 5–6 × 1.5–2 mm, obtuse; lip base with a claw ca. 1 mm, lip 3-lobed; lateral lobes suberect, falcate, narrowly suboblong, ca. 2.5 × 1.2 mm, obtuse-rounded; mid-lobe suborbicular, ca. 0.5 mm wide, fleshy, abaxially ± conic-swollen; disk slightly concave at base, densely hairy. Fl. Sep–Oct. $2n = 36, 38$.

Epiphytic on branches at forest margins along rivers or valleys; 900–1000 m. N Fujian, N Guangdong, NE Guizhou, Hunan, Sichuan, N Taiwan [Japan].

13. *Thrixspermum amplexicaule* (Blume) H. G. Reichenbach, Xenia Orchid. 2: 121. 1868.

抱茎白点兰 bao jing bai dian lan

Dendrocolla amplexicaulis Blume, Bijdr. 288. 1825.

Stems slightly compressed trigonous, ca. 35 cm, ca. 2 mm in diam., slender, with many nodes, internodes ca. 2 cm, each node bearing an aerial root. Leaves well spaced, ovate-lanceolate, 2–2.5 × ca. 0.7 cm, thinly textured, base cordate and amplexicaul, apex acute and minutely bilobed. Inflorescence 30–35 cm, more than 10 × as long as leaves, slender, many flowered; floral bracts persistent, distichous, 2–3 mm apart from each other, 3–4 mm. Flowers opening 1 or 2 at a time and lasting a day only, white or lilac-pink, to 3.5 cm in diam., column white; pedicel and ovary 7–8 mm. Sepals ovate, ca. 17 × 11 mm, rather concave, obtuse. Petals slightly shorter and narrower; lip saccate, shorter than petals; lateral lobes erect, small, acute; mid-lobe fleshy, obtuse; sac ca. 6 mm deep, with a small yellow callus inside and a band of orange hairs below it. Column very much flattened, ca. 2.7 mm. Capsule cylindrical, 7–8 cm × ca. 5 mm, slender.

Lithophytic on rocks near the sea; sea level to 100 m. E Hainan [India (Andaman Islands), Indonesia, Malaysia, New Guinea, Philippines, Thailand, Vietnam; Pacific islands (Solomon Islands)].

14. *Thrixspermum centipeda* Loureiro, Fl. Cochinch. 2: 520. 1790.

白点兰 bai dian lan

Aerides arachnites (Blume) Lindley; *Dendrobium auriferum* Lindley; *Dendrocolla arachnites* Blume; *Sarcochilus arachnites* (Blume) H. G. Reichenbach; *S. aurifer* (Lindley) H. G. Reichenbach; *S. centipeda* (Loureiro) Náves; *S. hainanensis* Rolfe; *Thrixspermum arachnites* (Blume) H. G. Reichenbach; *T. auriferum* (Lindley) H. G. Reichenbach; *T. hainanense* (Rolfe) Schlechter.

Stems ascending or pendulous, ± compressed terete, to 20 cm, stout, rigid, with many nodes, internodes 1–1.5 cm. Leaves many, oblong, 6–24 × 1–2.5 cm, slightly fleshy, base narrowed, apex obtuse and unequally bilobed. Inflorescences often several, solitary or in pairs, opposite to leaves, spreading or ascending, longer or shorter than leaves, few flowered; peduncle compressed, often narrowly winged; floral bracts persistent, densely spaced, 1–2 mm apart from each other, distichous, conduplicate, ca. 6 mm, fleshy. Flowers white or creamy yellow, turning yellow later, not opening widely, lasting almost 3 days, thickly textured; pedicel and ovary white, ca. 7 mm. Sepals narrowly falcate-lanceolate, 3–4.5 × 0.3–0.5 cm, long acuminate; lateral sepals slightly wider at base. Petals narrowly falcate-lanceolate, slightly smaller than sepals; lip shallowly saccate at base, 3-lobed; lateral lobes erect, subovate, 2–3 mm, obtuse; mid-lobe spreading, ca. 5 mm, thickly fleshy, conduplicate and narrowly conic in outline, obtuse; disk with a central callus. Column 1.5–2 mm, stout, foot very short. Fl. Jun–Jul. $2n = 38$.

Epiphytic on tree trunks in forests; 100–1200 m. Guangxi, Hainan, Hong Kong, S and SE Yunnan [Cambodia, NE India, Indonesia, Laos, Malaysia, Myanmar, Thailand, Vietnam].

