
地宝兰属 di bao lan shu

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Cistella Blume; Ortmannia Opiz; Otandra Salisbury.

Herbs, terrestrial, medium-sized, leafy. Pseudobulbs subterranean, cornlike or tuberous, usually globose, few noded, borne on a short rhizome and usually forming clusters, with several thick roots at nodes. Leaves arising from basal node of pseudobulb, several, uppermost largest, contracted into a long petiole-like stalk at base, plicate; petiole-like stalk usually equitant and forming a pseudostem, articulate. Inflorescence arising from basal node of pseudobulb, terminal, racemose; peduncle erect at base, curved through 180° and drooping toward apex; rachis pendulous but becoming erect in fruit, short, usually densely several to many flowered and appearing capitulate. Flowers medium-sized or small, not opening widely, not resupinate but, because peduncle pendulous at apex, lip positioned lowermost. Sepals and petals similar though petals usually slightly broader, free, not spreading; lip unlobed or obscurely 3-lobed, usually not covered in fibrous sheaths. Leaves short, with a short column foot; anther terminal, 1-locular or incompletely 2-locular, with cap; pollinia 2, usually cleft, waxy, attached to a broad stipe and a large viscidium.

About ten species: from tropical Asia, as far north as S Japan (Ryukyu Islands), to Australia and the SW Pacific islands; six species (two endemic) in China.

1a. Inflorescence usually taller than leaves.
2a. Flowers white ................................................................. 1. G. densiflorum
2b. Flowers rose-colored ............................................................ 6. G. eulophioides

1b. Inflorescence much shorter than or subequal in height to leaves.
3a. Flowers rose-colored; lip 3-lobed ........................................... 5. G. esquirolei
3b. Flowers white; lip unlobed.
4a. Lip with a 2-lobed wartlike callus near base ................................ 4. G. attenuatum
4b. Lip with a central callus composed of 2–5 longitudinal fleshy ridges.
5a. Leaves well developed at anthesis, (10–)13–21(–31) cm; lip shallowly concave at base; callus on lip composed of 2 or 3 fleshy ridges ........................................... 2. G. recurvum
5b. Leaves not fully developed at anthesis, 7–11 cm; lip conic-saccate at base; callus on lip composed of 3–5 fleshy ridges ............................................................... 3. G. pulchellum


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Limodorum densiflorum Lamarck, Encycl. 3: 516. 1792; Cistella cernua (Wildenow) Blume; Cymbidium pictum R. Brown; Dendrobium nutans C. Presl; Geodorum formosanum Rolfe; G. fucatum Lindley; G. nutans (C. Presl) Ames; G. pacificum Rolfe; G. pictum (R. Brown) Lindley; G. purpureum R. Brown; G. semicristatum Lindley; Malaxis cernua Willdenow; Ortmannia cernua (Willdenow) Opiz; Otandra cernua (Willdenow) Salisbury; Tropidia grandis Hance.

Plants 30–50 cm tall. Pseudobulbs tuberous, irregularly ellipsoid to triangular-ovoid, borne on a very short rhizome and forming dense clusters, 1.5–2 cm in diam., few noded, usually partially covered in fibrous sheaths. Leaves 2 or 3, well developed at anthesis, lustrous, elliptic, narrowly elliptic, or obovate-lanceolate, 15–35 × (2–)3–9 cm, papery, apex acuminate or acute; petiole-like stalk enclosed in several sheaths and forming a pseudostem to ca. 25 cm. Inflorescence (10–)30–40 cm, usually as tall as or taller than leaves; peduncle with 3–5 widely spaced sheaths; sheaths tubular, 4–6.5 cm, membranous; rachis pendulous, 2.5–6 cm, densely (2–)15-flowered; floral bracts linear-lanceolate, 5–9 cm. Flowers not opening widely, white to pinkish, lip with a central yellow callus and crimson-purple venation and streaks; pedicel and ovary 7–8 mm. Sepals oblong, 10–12 × 3–4 mm, apex acute; lateral sepals somewhat oblique. Petals subobovate-oblong, 10–12 × 4–5 mm, apex acute or mucronate; lip broadly ovate-oblong, 10–11 × 9–10 mm, shallowly saccate at base, unlobed, lateral margins erect, apex subtruncate and slightly emarginate or retuse; disk usually with a callus composed of a cluster of irregular, fleshy wartlike projections or a pair of short, fleshy longitudinal ridges. Column 3–5 mm, with a short column foot. Capsule oblong, 3.5–5 × ca. 1.5 cm. Fl. Jun–Jul. 2n = 36, 52, 54.

Forests, streamsides, grassy slopes; 300–2400 m. Guangdong, Guangxi, Guizhou, Hainan, SW Sichuan, Taiwan, Yunnan [Cambodia, India, Indonesia, Japan (Ryukyu Islands), Laos, Malaysia, Myanmar, New Guinea, Sri Lanka, Thailand, Vietnam; Australia].

The recent use of the name Geodorum terrestris (Linnaeus) Garay for this species (see Garay, Harvard Pap. Bot. 291: 47. 1997) cannot be justified. The specimen referred to by Garay as the type is G. citrinum Jackson, rather than G. densiflorum (P. Ormerod, pers. comm.).


多花地宝兰 duo hua di bao lan
Limodorum recurvum Roxburgh, Pl. Coromandel 1: 33. 1795; Geodorum dilatatum R. Brown.

Plants 14–28 cm tall. Pseudobulbs tuberous, ovoid, borne on a short rhizome and sometimes forming clusters, 1.5–2.5 cm in diam., few noded, usually partially covered in fibrous sheaths. Leaves 2 or 3, well developed at anthesis, elliptic-oblong to elliptic, (10–)13–21–(31) × (3–)5–7–(11) cm, apex acute or shortly acuminate; petiole-like stalk enclosed in several sheaths and forming a pseudostem 8–18 cm. Inflorescence (8–)15–18 cm, much shorter than leaves; peduncle with 2 or 3 tubular, membranous sheaths; rachis pendulous, 3–4 cm, densely 10– or more flowered; floral bracts linear-lanceolate, 6–12 mm, membranous, apex acute. Flowers not opening widely, white, lip with purplish streaks and a yellowish callus at center; pedicel and ovary 5–6 mm. Sepals narrowly oblong, 10–12 × 2–2.5 mm, apex acuminate; lateral sepals slightly wider than dorsal sepal. Petals obovate-oblong, 9–11 × ca. 3.5 mm, apex obtuse or acute; lip broadly obovate-ovate, ca. 8 × 5 mm, shallowly concave at base, unlobed, lateral margins erect, apical margins slightly crisped, apex obtuse and usually slightly emarginate; disk with a central callus composed of 2 or 3 fleshy, crestlike longitudinal ridges extending from midway along lip almost to apex. Column 3–3.5 mm, with a short column foot. Fl. Apr–Jun.

Forests, thickets, forest margins; 500–900 m. S Guangdong, Hainan, S and SE Yunnan [Cambodia, India, Myanmar, Thailand, Vietnam].


美丽地宝兰 mei li di bao lan

Plants 11–20 cm tall. Pseudobulbs tuberous, globose to ovoid, borne on a very short rhizome and forming dense clusters, ca. 1.5 cm in diam., usually partially covered in fibrous sheaths. Leaves 2 or 3, not fully developed at anthesis, broadly ovate-elliptic, 7–11 × 2.5–3 cm in flowering individuals, apex acute; petiole-like stalk enclosed in several sheaths and forming a pseudostem 4–7 cm. Inflorescence 6–13 cm, shorter than or subequal in height to leaves; peduncle with 2 or 3 tubular sheaths ca. 2 cm; rachis pendulous, 1.5–2.5 cm, densely more than 10-flowered; floral bracts lanceolate, 6–7 × 2–3 mm, membranous, apex acute. Flowers not opening widely, white, lip yellow above middle; pedicel and ovary 5–6 mm. Sepals narrowly oblong, 12–15 × 4–6 mm, apex shortly acuminate or subacute; lateral sepals somewhat oblique. Petals ovate-elliptic, 11–13 × 7–8 mm, apex subacute; lip broadly ovate, 12–14 × ca. 6 mm, concave to shallowly saccate at base, unlobed, lateral margins erect, apex truncate and sometimes emarginate; disk with a brown, 2-lobed wartlike callus near base. Column stout, 2.5–3.5 × ca. 2.5 mm, with a short column foot. Fl. May–Jun.

Rocky substrates near rivers, grasslands; 400–1400 m. NW and SE Yunnan [Thailand, Vietnam].


西南地宝兰 xi nan di bao lan

Plants ca. 23 cm tall. Pseudobulbs tuberous, subellipsoid, 2–3 × 1–1.5 cm. Leaves 3 or 4, well developed at anthesis, oblong-lanceolate-oblong, 9–22 × 2.5–4.2 cm, apex acuminate; petiole-like stalk enclosed in several sheaths and forming a pseudostem 4–9 cm. Inflorescence arising from base of pseudobulb, 6–12 cm, much shorter than leaves; peduncle with 2 or 3 tubular sheaths; rachis pendulous, very short, densely 2–4-flowered; floral bracts lanceolate, 8–12 mm, membranous, apex acute. Flowers not opening widely, white, lip yellow above middle; pedicel and ovary 5–6 mm. Sepals oblong or ovate-oblong, 12–15 × 4–6 mm, apex shortly acuminate or subacute; lateral sepals somewhat oblique. Petals ovate-elliptic, 11–13 × 7–8 mm, apex subacute; lip broadly ovate, 12–14 × ca. 6 mm, concave to shallowly saccate at base, unlobed, lateral margins erect, apex truncate and sometimes emarginate; disk with a brown, 2-lobed wartlike callus near base. Column stout, 2.5–3.5 × ca. 2.5 mm, with a short column foot. Fl. May–Jun.

Forest margins; 200–1400 m. Hainan, S Yunnan [Laos, Myanmar, Thailand, Vietnam].


大花地宝兰 da hua di bao lan

Geodorum cochinchinense Gagnepain; G. laoticum Guilder; G. regnieri Gagnepain.

Plants 15–30 cm tall. Pseudobulbs tuberous, subellipsoid, 2–3 × 1–1.5 cm. Leaves 3 or 4, well developed at anthesis, oblong-lanceolate-oblong, 9–22 × 2.5–4.2 cm, apex acuminate; petiole-like stalk enclosed in several sheaths and forming a pseudostem 4–9 cm. Inflorescence arising from base of pseudobulb, 6–12 cm, much shorter than leaves; peduncle with 2 or 3 tubular sheaths; rachis pendulous, very short, densely 2–4-flowered; floral bracts lanceolate, 8–12 mm, membranous, apex acute. Flowers not opening widely, white, lip yellow above middle; pedicel and ovary 5–6 mm. Sepals oblong or ovate-oblong, 12–15 × 4–6 mm, apex shortly acuminate or subacute; lateral sepals somewhat oblique. Petals ovate-elliptic, 11–13 × 7–8 mm, apex subacute; lip broadly ovate, 12–14 × ca. 6 mm, concave to shallowly saccate at base, unlobed, lateral margins erect, apex truncate and sometimes emarginate; disk with a brown, 2-lobed wartlike callus near base. Column stout, 2.5–3.5 × ca. 2.5 mm, with a short column foot. Fl. May–Jun.

Forest margins; 200–1400 m. Hainan, S Yunnan [Laos, Myanmar, Thailand, Vietnam].
duncle with 3 scattered sheaths; rachis pendent, short, densely 7–10-flowered; floral bracts lanceolate, lower ones slightly exceeding flowers, upper ones shorter, apex acuminate. Flowers rose-colored; pedicel and ovary cylindric, ca. 8 mm. Sepals oblong, ca. 15 mm, shortly or long acuminate; lateral sepals oblique. Petals ovate, oblique, ca. 14 mm, wider than sepals, apex apiculate; lip orbicular-ovate, ca. 13 × 8.5 mm, shallowly saccate at base, 3-lobed, apex obtuse or retuse; disk with a calyx composed of 3 short, fleshy, longitudinal ridges near base, middle ridge somewhat rugulose toward apex. Column short, ca. 5 mm. Fl. Jun.

● Grasslands; ca. 800 m. Guizhou.


贵州地宝兰  gui zhou di bao lan

Plants ca. 32 cm tall. Pseudobulbs tuberous, irregularly cylindric, ca. 2 cm in diam. Leaves 2, well developed at anthesis; petiole-like stalk enclosed in several sheaths. Inflorescence ca. 32 cm, taller than leaves; peduncle with 2 or 3 tubular sheaths; rachis pendulous, ca. 4.5 cm, densely many flowered; floral bracts narrowly lanceolate, lower ones ca. as long as flowers. Flowers rose-colored; pedicel and ovary ca. 10 mm. Sepals narrowly ligulate-oblong, 13–15 × 2–3 mm, apex apiculate; lateral sepals somewhat longer than dorsal sepal, slightly oblique. Petals suboblong, slightly oblique, 13–15 × 4.5–5 mm, apex apiculate; lip ovate, ca. 12 × 8 mm, concave to shallowly saccate at base, unlobed, margin undulate, apex subtruncate; disk papillate and thickened above middle. Column ca. 4.5 mm. Fl. Dec.

● Along valleys; ca. 600 m. S Guizhou (Luodian).

This species remains imperfectly known.