

中国兰科植物新资料*

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摘要: 报道了中国兰科 2 个新记录属及 5 个新记录种: 固唇兰属 (*Plocoglottis*)、栖林兰属 (*Drymoda*)、滇南固唇兰 (*Plocoglottis bokorensis*)、栖林兰 (*Drymoda siamensis*)、泰国牛角兰 (*Ceratostylis siamensis*)、景洪白蝶兰 (*Pecteilis hawkesiana*)、三脉贝母兰 (*Coelogyne trinervis*)、浮萍毛兰 (*Eria spirodela*)。对 2 个属及 5 个种进行了特征描述, 并对比了近似种。

关键词: 新记录; 属; 种; 兰科; 中国

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Orchids Newly Recorded to China

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Abstract: Two genera and five species of Orchidaceae: *Plocoglottis*, *Drymoda*, *Plocoglottis bokorensis*, *Drymoda siamensis*, *Ceratostylis siamensis*, *Pecteilis hawkesiana*, *Coelogyne trinervis*, *Eria spirodela*, are described as new records of flora to China. Every genus and species gives the character described and compare with similar species.

Key words: New record; Genus; Species; Orchidaceae; China

During our botanical trip to Xishuangbanna in southern Yunnan, China, between 2011–2014, several plants were investigated as new records to China. We reported the results here.

1. *Plocoglottis* Blume, Bijdr. Fl. Ned. Ind. **8**: 380. (1825). Type: *Plocoglottis javanica* Blume.

固唇兰属

Terrestrial plants, sympodial, without or with pseudobulbs arising from short creeping rhizomes. Leaves one or more. Inflorescence lateral, densely with many flowered. Flowers open gradually. Sepals lanceolate, petals linear, nearly equal in length; lip

3-lobed; column flesh; anther cap cordate; pollinia 4.

Plocoglottis Blume is a terrestrial orchid genus of 40–45 species and is mainly distributed in Malesia, ranging from the Andaman Islands, southern Myanmar, Thailand, Cambodia, Vietnam, China and eastwards as far as New Guinea, Bismarck Archipelago and the Solomon Island. Plants of this genus are found in low-land, hill and lower montane forest up to 1 200 m. Kurzweil (2009) suggested that this genus was placed in tribe Collabieae of subfamily Epidendroideae.

2. *Plocoglottis bokorensis* (Gagnepain) Seidenf., Dansk Bot. Ark. **33** (3): 219. 1979. —*Bulbophyllum*

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bokorensis Gagnep., Bull. Mus. Natl. Hist. Nat. II: 22. 399. 1950; *Plocoglottis mirabilis* Seidenf., Bot. Tidsskr. 65. 336. 1970.

滇南固唇兰 (Fig. 1: A–C)

Terrestrial herbs, evergreen. Rhizome several, creeping on base of pseudobulbs. Pseudobulbs bottle-shaped to conical, 10–13×2.5–4 cm, internodes 3–7 cm, dark green and becoming purplish brown when old. Stems reed-like, arising from distinct pseudobulbs, 40–70 cm tall, with several leaves in its upper half, lower half with sheath, Leaves 5–10, ovate lanceolate, acuminate, petioles not prominent, blades 10–21×2–4 cm, glabrous, basally sheathing, blades wavy. Inflorescence arising from the base of pseudobulbs, 40–80 cm long, equal or longer than the leafy stem, pubescent; bracts 5–7, scattered along the flowering stem and a few clustered at its base, lanceolate, tubular, acute, 2.5–5 cm long, glabrous; raceme lax, 5–24 flowered; rachis 14–31 cm long; floral bracts ovate-lanceolate, acuminate, glabrous, 2–2.5×0.3–0.7 cm. Flowers whitish-green with purple markings, lip whitish with purple markings at base, and whitish-yellow when old; pedicel and ovary 2–2.5 cm, pubescent; sepals pubescent on the outside, glabrous on the inside; dorsal sepal lanceolate, cymbiform, acuminate, 7-veined, 20×7 mm; lateral sepals similar but slightly narrower; petals narrowly oblong, obtuse, glabrous, 5-veined, 19×5 mm. Lip ovate, apex revolute (which makes lip looks like trapeziform), shallowly 3-lobed, glabrous, 1×1.7 cm, base with a distinct cavity formed by the flanges, stretch (with can be makes the lip 90–180 degree change to the gynostemium), mid-lobe triangular, ca. 1×1.5 mm; lateral lobes triangular, obtuse ca. 3×2.5 mm, gynostemium fleshy, with 2 purple blots, 7×4 mm; anther cap heart-shaped; pollinia 4, 2 with a stipe; rostellum porrect, ca. 1 mm. Flowering from the beginning of June to the end of July.

China. Yunnan (云南): Xishuangbanna (西双版纳), Jinghong (景洪), alt. 900 m, 18 June, 2013, beside river, under tropical rain forests. LI

Jian-wu (李剑武) 3329 (HITBC!).

Distribution: China (Yunnan), Thailand, Cambodia, Laos and Vietnam.

Plocoglottis bokorensis is similar to *P. gigantea*, but differs from the latter by having bottle-shaped basal pseudobulbs to 13 cm tall (pseudobulbs absent in *P. gigantea*), sides of lip not much recurved (sides of lip much recurved in *P. gigantea*), lip broadest near the apex (lip broadest near the middle in *P. gigantea*) (Kurzweil, 2009).

3. *Drymoda* Lindley, Sert. Orch. t. 8 C (1838). Type: *Drymoda picta* Lindley.

栖林兰属

Epiphytic. Rhizome several. Pseudobulbs congested, suborbicular, compressed, apex with 1–2 leaves, leaf deciduous when flowering. Inflorescence short, 1-flowered, arising from the base of pseudobulbs, pedicel and ovary long; dorsal sepal erect, acuminate, lateral sepals attached to distal end of the column-foot, acuminate; petals linear, acuminate; lip slightly 3-lobed, mid-lobe recurved, acute, lateral-lobes erect; column short, column-foot long; anther cap cordate-cucullate, pollinia 4.

Drymoda Lindley is a small genus with 5 species, but 2 of them were moved into *Bulbuphyllum*.

4. *Drymoda siamensis* Schlechter, Repert. Spec. Nov. Regni Veg. 2: 170. 1906

栖林兰 (Fig. 1: D–F)

Epiphytic. Stems short, rhizome several. Pseudobulbs congested, sub-orbicular, compressed, ca. 0.7–1.2 cm in diam., with a sheath; sheath membranous, ovate, acute, deciduous, ca. 7×5 mm; apex with 2 leaves. Leaves with a sheath; sheath ovate, acute, ca. 8×6 mm; leaf sessile, leaf blade ovate-oblong, ca. 2.1–2.3×0.6–0.8 cm, slightly purple on the dorsal, apex acute, leaf deciduous when flowering. Inflorescence arising from base of pseudobulbs, ca. 6 mm long, floral bracts membranous, ovate-lanceolate, acuminate, ca. 2–2.5×1.5–2 mm. Inflorescence 1-flowered, flower slightly

white-yellow, slightly violet. Pedicel and ovary *ca.* 2–2.3 cm long, dorsal sepal ovate-oblong, *ca.* 7.5–8 × 3–3.5 mm, fleshy, acuminate, base acute, slightly white-yellow, middle violet, 3-veined, vein deep violet; lateral sepals ovate-falcate, attached to distal end of naked columnfoot, *ca.* 10.5–11 × 3.5–4 mm, fleshy, acuminate, slightly white-yellow, middle vi-

olet, 5-veined, vein deep violet; petals slightly lanceolate, *ca.* 6–6.5 × 1–1.1 mm, fleshy, acuminate, 1-veined, vein violet; lip articulate, *ca.* 1.5 mm long, lip ovate-oblong, *ca.* 11–12 × 5.5–6 mm, fleshy, acute, 7-veined, vein deep violet, middle with a carinate; slightly 3-lobed, lateral lobes erect, semi-elliptic, mid-lobe ovate, acute, recurved; column



Fig. 1 A–C: *Plocoglottis bokorensis*. A. plant; B. flower face view; C. inflorescence; D–F: *Drymoda siamensis*. D. plant; E. flower side view; F. flower (a. dorsal sepal; b. petals; c. lateral sepals; d. lip; e. pedicel and ovary with column-foot.); G–H: *Ceratostylis siamensis*. G. plant; H. flower

short, *ca.* 1.5 mm, with 2 wings, wing semi-rotund, *ca.* 2×2 mm; column-foot long, *ca.* 8 mm; column, wings and column-foot slightly yellow, with violet spot; anther cap cordate-cucullate, *ca.* 0.8×1 mm, pollinia 4, falcate-pyriform. Flowering from March to April.

China. Yunnan (云南): Xishuangbanna (西双版纳), Menghai (勐海), alt. 1 100 m, 20 March, 2014, on broadleaved tree, mixed broadleaf-conifer forest. LI Jian-wu (李剑武) 3976 (HITBC!).

Distribution: China (Yunnan), Thailand, Laos.

Drymoda siamensis is similar to *D. picta* Lindley, but differs from the latter by pedicel and ovary shorter, wings of column smaller, sepals ovate acute not twice as long as broad (sepals linear lanceolate, 4–5 times as long as broad in *D. picta*), petals linear (petals ovate in *D. picta*), and a common lip (lip flesht in *D. picta*). (Seidenfaden, 1981).

5. *Ceratostylis siamensis* Rolfe ex Downie., Bull. Misc. Inform. Kew 1925, 379. —*Ceratostylis pygmaea* Evrard ex Gagnep. Bull. Soc. Bot. France **79**: 33. 1932; *Eria banaensis* Gagnep. Bull. Mus. Natl. Hist. Nat. Ser. II. ii. 304. 1930.

泰国牛角兰 (Fig. 1: G–H)

Epiphytic. Rhizome several; stem 2 mm long, 4–6 sheaths, sheaths reddish brown, membranous, ovate-lanceolate, acute, *ca.* 5–9×4–5 mm. Leaves linear, leaf blades fleshy, glabrous, apex unequally 2-lobed, 25×3.5–4 mm. Inflorescence arising from base of leaf, *ca.* 7 mm long, slightly pubescent; floral bracts reddish-brown, ovate-lanceolate, membranous, acuminate, *ca.* 4×2 mm. 1 or 2 flowered, not open at the same time, small, white with purple-red spotted, lip whitish-yellow, pedicel and ovary 2.5 mm long, pubescent; dorsal sepal oblong-lanceolate, pubescent on the outside, glabrous on the inside, acute, 3×1.5 mm; lateral sepals broadly ovate, pubescent on the outside, glabrous on the inside, acute, 2.2×3 mm; petals narrowly oblong, glabrous, 2.5×1 mm; lip oblong, 2.5–3 mm, cymbiform, thickened, base deeply saccate, margin entire, apex with a cushion-

like callus; column very short, column foot short with verrucose; anther cap galeated; pollinia 8, rostellum short. Capsule subellipsoid, 5–6×3–4 mm. Flowering from October to November.

China. Yunnan (云南): Xishuangbanna (西双版纳), Menghai (勐海), alt. 1 850 m, 25 October, 2012, on tree, broadleaved evergreen forest. LI Jian-wu (李剑武) 2739 (HITBC!); Puer (普洱), Ximeng (西盟), alt. 1 940 m, 18 November, 2011, on tree, broadleaved evergreen forests. LI Jian-wu (李剑武) 1238 (HITBC!); Puer (普洱), Menglian (孟连), alt. 1 540 m, 9 November, 2010, on tree, broadleaved evergreen forest. LI Jian-wu (李剑武) 209 (HITBC!).

Distribution: China (Yunnan), Thailand.

Ceratostylis siamensis is similar to *C. clathrata*, but differs from the latter by having leaves compressed and unequally 2-lobed at apex (the leaves of are subteret and acute at apex in *C. clathrata*), sepals pubescent on outside (both side of sepals glabrous in *C. clathrata*) (Downie, 1925).

6. *Pecteilis hawkesiana* (King & Pantl.) C. S. Kumar. Nordic J. Bot. **22** (6): 526. 2002. —*Habenaria hawkesiana* King & Pantl. J. Asiat. Soc. Bengal, Pt. 2, Nat. Hist. **66**: 603. 1897; *Pecteilis sagarikii* Seidenf. Bot. Tidsskr. **68** (1): 46. 1973; *Platanthera hawkesiana* (King & Pantl.) Kraenzl. Orch. Gen. et Sp. i. 634. 1899.

景洪白蝶兰 (Fig. 2: A–C)

Terrestrial herbs, 15–25 cm tall. Tubers ovoid-cylindric, 2–4×1.5–2.5 cm. Stem stout, with several tubular sheaths at base and 2–3 basal leaves. Leaves ovate-elliptic, acute, glabrous, amplexicaul, 9–10×6–7 cm. Sterile bracts often foliaceous, intergrading into amplexicaul, ovate-elliptic to lanceolate, 2.5–4×2–2.5 cm. Floral bracts foliaceous, lanceolate, 2.2–2.7 cm, shorter, equal or slightly exceeding ovary, apex acuminate. Flowers fragrant, white, lip yellow, medium-sized; pedicel and ovary 2.2–2.7 cm long, glabrous, shallowly winged; dorsal sepal broadly ovate-elliptic, erect, glabrous, apex

acute, 2.2×1.8 cm; lateral sepals ovate-lanceolate, erect, glabrous, apex acute, 2.4×1.4 cm, slightly longer than dorsal sepal; petals lanceolate, erect, glabrous, apex acute to acuminate, 2.1×1 cm; lip ovate-oblong, shallowly 3-lobed, lateral lobes semi-elliptic, entire, 2×1 cm; mid-lobe lanceolate, apex acuminate, revolute, with 2 crest at the middle, 3.5×1.5 cm; spur straight to gradually curved forward, 35–45×3–5 mm, apex acute, apex 3/5 greenish; column erect, short; anther erect, 2-locular; locules widely spaced in a very broad connective; pollinia 2, granular, 2 mm long, caudicles slender, 4 mm long, viscidia small, each hidden in a tubular fold at end of rostellum arms; lateral appendages 2, small, at base of anther; rostellum 3-lobed, lateral arms long, tapering; mid-lobe blunt; stigma lobes adnate to base of lip, connate, sessile.

China. Yunnan (云南): Xishuangbanna (西双版纳), Jinghong (景洪), alt. 780 m, 9 September, 2012, under bamboo forests. LI Jian-wu (李剑武) 1991 (HITBC!).

Distribution: China (Yunnan), Thailand, Myanmar.

Pecteilis hawkesiana is similar to *P. triflora* (Seidenfaden, 1973), but differs from it by having basal leaves (leaves cauline and alternate in *P. triflora*), flowers bright white, lip shallowly 3-lobed, lateral lobes entire, lip with yellow blotch from tip to the entrance of spur (flowers white, lip obviously 3-lobed, lateral lobes denticulate in *P. triflora*) (see Tang and Wang, 1951).

7. *Coelogyne trinervis* Lindley. Numer. List (Wallich). n. 1955. 54. 1829. — *C. angustifolia* Ridl. J. Linn. Soc. **32**: 322. 1896; *C. cinnamomea* Lindley. Gard. Chron. 37. 1858; *C. pachybulbon* Ridl. J. Linn. Soc. **32**: 324. 1896; *C. rhodeana* Rchb. f. Gard. Chron. 901. 1867; *C. rossiana* Rchb. f. Gard. Chron. II: 808. 1884; *C. stenophylla* Ridl. Fl. Malay Penins. IV: 132. 1924; *C. wettsteiniana* Schltr. Oesterr. Bot. Z. **69**: 124. 1920; *Pleione rossiana* (Rchb. f.) Kuntze. Revis. Gen. Pl. **2**: 680. 1891; *P. trinervis* (Lind-

ley) Kuntze. Revis. Gen. Pl. **2**: 680. 1891.

三脉贝母兰 (Fig. 2: D–E)

Epiphytic. Rhizomes several. Pseudobulbs 2–4 cm apart from each other, ovate-round, *ca.* 4.5–5×3–3.5 cm, sheathing at beginning, sheath deciduous, 2-leaves at apex of pseudobulbs. Stems *ca.* 7–9 mm in diam., several sheaths, sheath triangular, *ca.* 2.8×1.4 mm, acute. Petiole 4–5 cm long, sulcate, leaf blade linear, leathery, *ca.* 25–27×3–3.5 cm, 3-veined, vein concave on the surface, and convex on the other side. Inflorescence arising from base of pseudobulbs, peduncle *ca.* 6 cm, with several equitant sheaths, sheath ovate, *ca.* 1–2×1–1.2 cm, acute; rachis 8–10-flowered; flowers 2–2.5 cm apart from each other, rachis flexuous, floral bracts ovate-lanceolate, slightly yellow-brown, *ca.* 4–4.5×0.8–1 cm, acute. Pedicel and ovary *ca.* 2–3.5 cm long, at lower rachis longer than top; flower slightly yellow-green, dorsal sepal ovate-lanceolate, *ca.* 2.3×0.8 cm, acute, concave; lateral sepals lanceolate, *ca.* 2.3×0.7 cm, acute, concave; petals linear, *ca.* 2×0.4 cm, acute, concave; lip ovate, *ca.* 2×1.5 cm, 3-lobed, lateral lobes erect, deep yellow-brown, ovate, *ca.* 1.2×0.5 cm, apex round; mid-lobe oblong, apex acute, margins slightly yellow, middle white, callus with 3 crisped-incised, longitudinal ridges extending from base of lip to apex; column slightly arching, *ca.* 1.4×0.5 cm, with 2 wings on both side; anther cap round, *ca.* 2.5×4 mm. Pollinia 4. Flowering from June to July.

China. Yunnan (云南): Xishuangbanna (西双版纳), Menghai (勐海), alt. 1 600 m, 23 July, 2013, on tree, broadleaved evergreen forest, LI Jian-wu (李剑武) 3603 (HITBC!).

Distribution: China (Yunnan), Thailand, Myanmar, Malaysia, Laos, Cambodia, Vietnam, Java, Lesser Sunda Islands, Moluccas and Sumatra.

This species is similar to *C. graminifolia* (*C. viscosa*), but *C. graminifolia* is characterized by having much narrow leaf, pseudobulbs smaller, mid-lobes ovate, lamella not extending to apex and mid-lamella shorter.

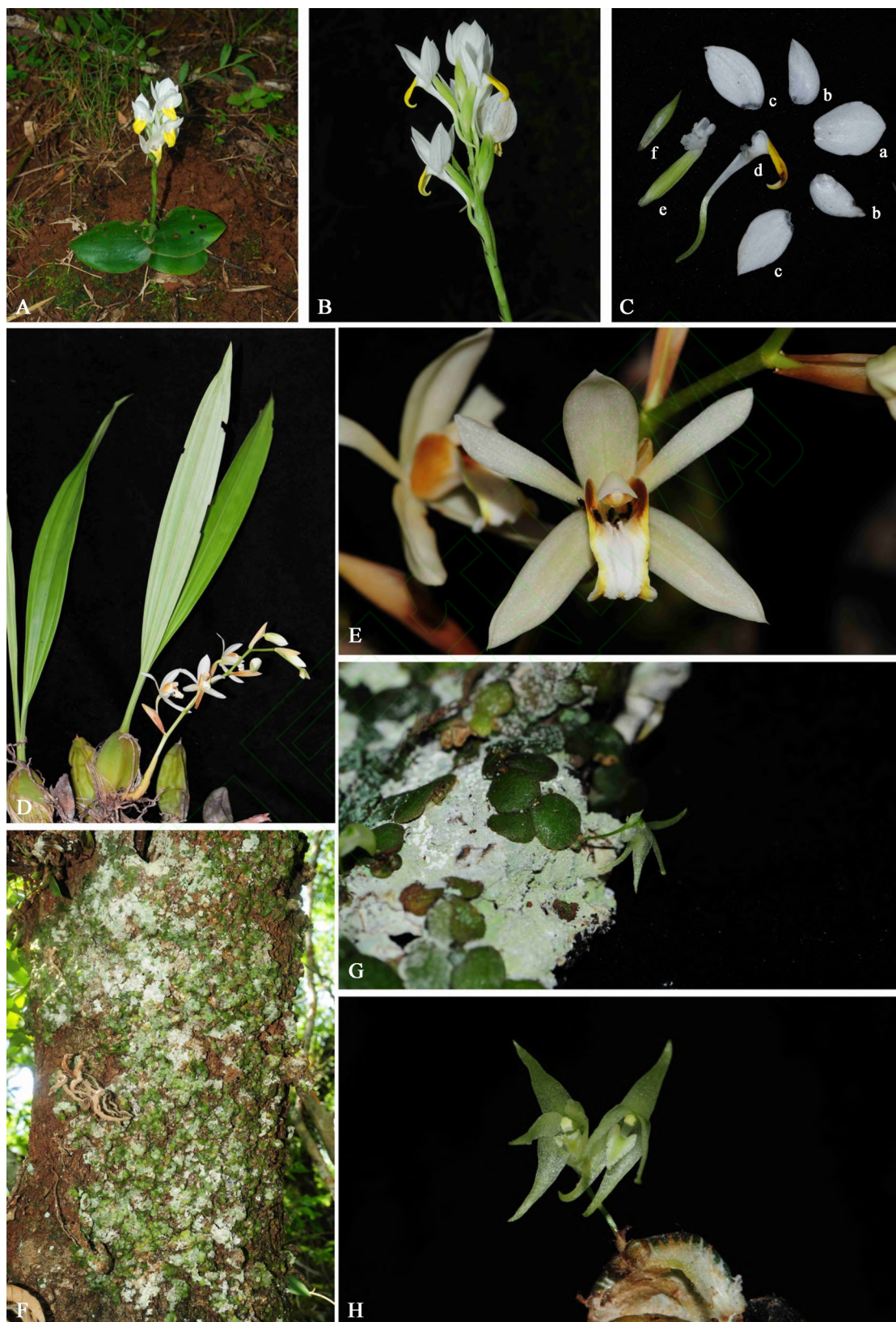


Fig. 2 A-C: *Pecteilis hawkesiana*. A. plant; B. inflorescence; C. flower (a. dorsal sepal; b. petals; c. lateral sepals; d. lip; e. pedicel and ovary; f. floral bract.); D-E: *Coelogyne trinervis*. D. plant; E. flower; F-H: *Eria spirodela*.

F. plant; G. flower side view; H. flower face view

8. *Eria spirodela* Aver. Bot. Zhurn. (Moscow & Leningrad) **73** (1): 101. 1988. — *Pinalia dasypus* (Rchb. f.) Kuntze, Revis. Gen. Pl. **2**: 679. 1891.

浮萍毛兰 (Fig. 2: F-H)

Epiphytic. Stems short, almost acaulescent. Rhizomes several, arising from base of pseudobulbs. Pseudobulbs congested, lepidoid, flabellate or rotund, *ca.* 0.4–1×0.4–1 cm. 1-leaf basal, leaf deciduous when flowering, leaf blade ovate, apex acute, *ca.* 0.8–1×0.4–0.5 cm, petiole short, *ca.* 1 mm long. Inflorescence arising from lateral of pseudobulbs, peduncle *ca.* 5–5.5 mm long, with 2 sheaths, sheath triangular, acute, margins denticulate, *ca.* 1×1.2 mm; rachis with 2 flowers; floral bracts ovate, *ca.* 2×2.2 mm, acute, margins denticulate. Pedicel and ovary 2.2 mm long. Flowers greenish; dorsal sepal lanceolate, *ca.* 6.5–7×1.5–1.7 mm, acuminate, 3-veined; lateral sepals triangular, slightly oblique, *ca.* 6–6.5×2.7–3 mm, acuminate, 3-veined, mentum *ca.* 2 mm long, incurved; petals lanceolate, *ca.* 6–6.5×1–1.1 mm, acuminate, 3-veined; lip lanceolate, fleshy, *ca.* 4–4.2×1.1–1.2 mm, slightly 3-lobed, lateral lobes erect, *ca.* 2×0.3 mm, linear, apex rotund, mid-lobe lanceolate, acuminate, middle with 2 thick fleshy ridges, ridge *ca.* 2 mm long; column *ca.* 1 mm long, slightly with wings, column dens *ca.* 0.5×0.2 mm, column foot *ca.* 3 mm long, slightly curved; pollinia 8. Flowering from June to July.

China. Yunnan (云南): Xishuangbanna (西双版纳), Mengla (勐腊), alt. 900 m, May 1, 2013, on tree or rock, karst region forest, LI Jian-wu (李剑武) 3399 (HITBC!).

Distribution: China (Yunnan), Thailand, Laos, Vietnam.

Eria spirodela is distinct species in *Eria* s.l., characterized by its habit.

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References:

- Downie DG, 1925. Contributions to the Flora of Siam. Additamentum XVI [J]. *Bulletin of Miscellaneous Information (Royal Gardens, Kew)*, **9**: 367–394
- Henry Ridley, 1896. The Orchideae and Apostasiaceae of the Malay Peninsula [J]. *The Journal of the Linnean Society Botany*, **32**: 213–416
- Kurzweil H, 2009. A review of the genus *Plocoglottis* (Orchidaceae) in thailand [J]. *Gardens' Bulletin Singapore*, **61** (1): 81–93
- Schlechter R, 1906. Orchidaceae novae et criticae [J]. *Repertorium Novarum Specierum Regni Vegetabilis*, **2**: 166–171
- Seidenfaden G, 1973. Contributions to the orchid flora of Thailand V [J]. *Botanisk Tidskrift*, **68**: 41–95
- Seidenfaden G, 1981. Contributions to the orchid flora of Thailand IX [J]. *Nordic Journal of Botany*, **1** (2): 192–217
- Tang T, Wang FT, 1951. Contributions to the knowledge of eastern asiatic Orchidaceae II [J]. *Acta Phytotaxonomica Sinica*, **1** (1): 23–102