Research paper

Appendicula lucbanensis (Orchidaceae): A Newly Recorded Orchid in Taiwan

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【Abstract】Appendicula lucbanensis (Ames) Ames (Orchidaceae), an epiphytic orchid previously known only from the Philippines, is newly recorded in southern Taiwan. A. lucbanensis is easily distinguished from other known Appendicula species in Taiwan by having frequently branched stems, 2-4 cm long inflorescences, loosely arranged flowers, and flowers with ca. 4 mm long mentum.

【Key words】Appendicula lucbanensis, Orchidaceae, Taiwan, Taxonomy.

【Introduction】Appendicula (Orchidaceae: Podochileae, Epidendroideae) comprises ca. 60 species distributed from tropical Asia to Pacific Islands and NE Australia (Pridgeon et al. 2005, Chen & Wood 2009). This genus is characterized by a combination of elongate, non-pseudobulbous stems, distichous leaves with their blades all lie in one plane, persistent and often conspicuous floral bracts, small flowers with obtuse mentums, and pollinia fix on a solitary viscidium (Pridgeon et al. 2005). In Taiwan, two species were

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recognized in recent regional floras (Su 2000, Chen & Wood 2009). However, as noted by Chung (2008), we consider that *A. kotoensis* Hayata should be treated as an independent species rather than a synonym of *A. reflexa*. In this paper, we further report *A. lucbanensis* (Ames) Ames as a newly recorded species in Taiwan. This species was previously known only from the Philippines (Valmayor 1984, Agoo et al. 2003). Morphological description, photos and a revised key to the species in Taiwan are also provided.

Key to the *Appendicula* species in Taiwan
1. Stem frequently branched; inflorescence terminal, 2-4 cm, loosely flowered; lip 6-7 mm, with a large horse-shoe-shape basal appendage; mentum ca. 4 mm........................................................... *A. lucbanensis*
1. Stem unbranched; inflorescence terminal and lateral, up to 1.5 cm, densely flowered; lip 2-5 mm, with a small ligulate basal appendage; mentum 1-2 mm ...........................................................................................
2. Leaves lanceolate oblong, 4-5 cm; flowers white; lip with a hirsute appendage........................................... *A. fenixii*
2. Leaves elliptic or oblong, 1.5-4.0 cm; flowers pale greenish white or pale red-brownish white; lip with a glabrous appendage.....................................................................................................................................3.
3. Stems 10-30 cm; leaves 1.5-2.0 × 0.7-1.0 cm; flowers pale red-brownish white; lip ca. 2.0 × 1.5 mm..... .................................................................................................................................................... *A. kotoensis*
3. Stems 20-50 cm; leaves 2.5-4 × 1.0-1.5 cm; flowers pale greenish white; lip 2.3-3.0 × 2.0-2.5 mm..........
.......................................................................................................................................................... *A. reflexa*

TAXONOMIC TREATMENT


TYPE: PHILIPPINE. Luzon, Quezon Prov., Lucban, May 1907, A.D.E. Elmer 8068 (holotype: AMES photo!; isotypes: F photo!, MO photo!, NY photo!).

Plants epiphytic. Stems tufted, ascending or pendulous, subterete, 30-60 cm, 1.5-3 mm in diam., frequently branched; branchlets 10-20 cm; internodes 5-10 mm, completely enclosed in tubular sheaths of leaves. Leaves many, distichous, alternate; blade narrowly ovate-oblong, 25-40 × 4-8 mm, apex unequally 2-lobed or emarginate, apiculate, tubular-sheathed at base, margin cartilaginous, minutely serrulated toward apex; sheaths persistent, ca. 1 cm, amplexicaul. Inflorescence terminal, 2-4 cm, 6-10-flowered; floral bracts persistent, strongly reflexed, ovate, 4-5.5 mm. Flowers pale yellowish green, gradually turning yellow, 6-7 mm in diam.; pedicel and ovary 4-5 mm. Dorsal sepal ovate, ca. 4 × 3 mm, concave, obtuse-rounded; lateral sepals obliquely broad-ovate, 5-6 × 6-6.5 mm; mentum ca. 4 mm. Petals oblong, 3-4 × ca. 2 mm; lip suboblong, 6-7 × ca. 3 mm, slightly contracted near middle, apex rounded or slightly retuse, distal part with a thickened central appendage, with another large appendage arising from base to middle; basal appendage horse-shoe-shaped, margin slightly excurved basally and incurved distally. Column ca. 2 mm, foot ca. 4 mm. Anther cap ovate-deltoid, ca. 1.3 mm; purplish red; pollinia 6; viscidium ovate.

Distribution: The Philippines and Taiwan.

Ecology: Epiphytic on mossy trunks in ridge-top forest. Flowering observed from late May to June.
Specimens examined from Taiwan: Taitung, Daren Township, Mt. Chiapuan (佳菩安山), 800-1000 m elev., 28 May 2014, T. C. Hsu 7117 (TAIF).

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LITERATURE CITED

