

Research note

Corybas himalaicus (King & Pantl.) Schltr. (Orchidaceae): A Newly Recorded Species in Taiwan

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【 Summary 】

A newly recorded species, *Corybas himalaicus* (King & Pantl.) Schltr., in Taiwan is described and illustrated. This species is rare and originally endemic to the Himalayas. It was recently found in a forest of the central mountainous region. This species can be easily distinguished from other members of *Corybas* by its lip with a conspicuous rounded callus at the mouth of the throat, a near entire margin, a crimson distal portion, and being conspicuously marked with 4 or 5 parallel violet-red lines.

Key words: *Corybas himalaicus*, Orchidaceae, new record, Taiwan, rare species.

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研究簡報

臺灣新記錄蘭科植物 — 喜馬拉雅盔蘭 (*Corybas himalaicus*)

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摘 要

喜馬拉雅盔蘭 (*Corybas himalaicus*) 過去僅記錄於喜馬拉雅山區，我們最近在臺灣中部，海拔約 1900 m 的山區發現它的存在。本種的唇瓣喉處有一微隆起物，唇瓣除了先端外，近全緣，唇瓣尾端緋紅色，白色的唇瓣上有明顯的 4~5 個平行的紫紅色線紋，易與盔蘭屬中的其它成員區別。

關鍵詞：喜馬拉雅盔蘭、蘭科、新記錄、台灣、稀有植物。

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INTRODUCTION

Corybas is a remarkable genus of terrestrial orchids that comprises about 120 species found from South China and India to Australia, New Zealand, and western Pacific Islands. Taiwan is located at its northern distributional delimitation (Dransfield et al. 1986, Pridgeon et al. 2001). All species are small and inconspicuous from a distance. Plants consist of a single underground tuber and a single leaf subtending a single flower.

In Taiwan, *Corybas* was first recorded in 1975 (Lin 1975, 1977). There are 2 species on the island according to a latest overall revision (Su 2000), both of which are rare and so far found in single or only few localities. The newly collected species was immediately identified by the eye-like swelling at the mouth of the throat and nearly entire lip margins, which are not toothed. After a careful examination, the characters of the species generally meet the original descriptions and type specimens of *Corybas himalaicus* (King et al. 1896, Schlechter 1923, Dransfield et al. 1986, Seidenfaden 1992, Pearce et al. 2002). All 3 species of *Corybas* in Taiwan are found in semi-open environments in forests or along trails, growing in moss cushions on the ground or in thick masses of mosses and plants which are often found on trees in the cloud zone.

Key to the species of *Corybas* in Taiwan

1. Dorsal sepal apical margin irregularly serrulate, with a distinct caudate tip at apex; lateral sepals free at base..... *C. sinii*
1. Dorsal sepal obtuse at apex; lateral sepals connate at base for about 1/4 length margin of lip red.
 2. Dorsal sepal indistinctly concave; lip margin fimbriate around front portion; lip smooth at mouth of throat; spur red.....
..... *C. taiwanensis*

2. Dorsal sepal strongly concave; lip margin nearly entire or sparsely toothed at apex; lip with a conspicuous rounded callus at mouth of throat; spur whitish.....
..... *C. himalaicus*

TAXONOMIC TREATMENT

Corybas himalaicus (King & Pantl.) Schltr., Repert. Spec. Nov. Regni Veg. 19: 19. 1923; Pearce & Cribb, Orch. Bhutan 118-120. 2002. *Corysanthes himalaica* King & Pantling, J. Asaint. Soc. Bengal 65(2):128. 1896. —Types: India, Sikkim, *Pantling* 385 (AMES photo !, L photo !, BM, CAL, E, K, W).
..... 喜馬拉雅盔蘭 Figs. 1~3

Summer-green, terrestrial, glabrous, tuberous herb forming extensive colonies. Plants 3~6 cm tall from underground tuberoid to terminal flower. Root slender. Tuberoids globose, minutely pilose. Stems erect, terete, divided into 2 parts by a node, lower part pilose, 1~3 cm long, 1.5~2 mm in diam., upper part glabrous, about 2~5 cm long, 1.5~2 mm in diam., node with a tubular sheath enclosing upper stem. Leaf solitary, fleshy, sessile, cordate, 0.8~2.5 cm long, 0.7~2.3 cm wide, cuspidate at apex, entire, greenish on upper surface, pale green on lower surface, glabrous on both surface, venation nearly palmate. Flowers white tinged with violet-red patches and lines, nearly sessile; bracts linear-lanceolate, 5~6.5 mm long, 1.5~2 mm wide at base, acuminate at apex; ovary obliquely ovoid, 4~5 mm long, 1.8~2.2 mm in diam., 6-ribbed; ribs purplish; dorsal sepal incurved and embracing base of lip, spatulate, strongly concave, 12~17 mm long, 2.8~3.5 mm wide at base, 4~6 mm wide near apex, margin entire, obtuse at apex, 1-keeled; lateral sepals and petals arising from ventral base of lip, filiform; lateral sepals connecting at base, connected part 2~3 mm long, free part 7~11 mm

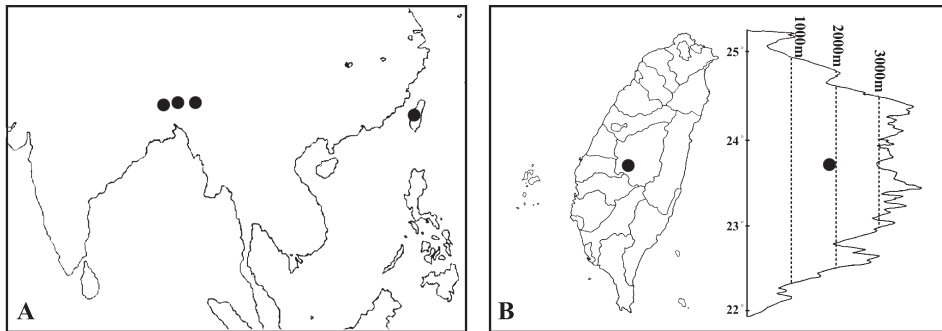


Fig. 1. Distribution map of *Corybas himalaicus* (King & Pantl.) Schltr. in the world (A) and in Taiwan (B).

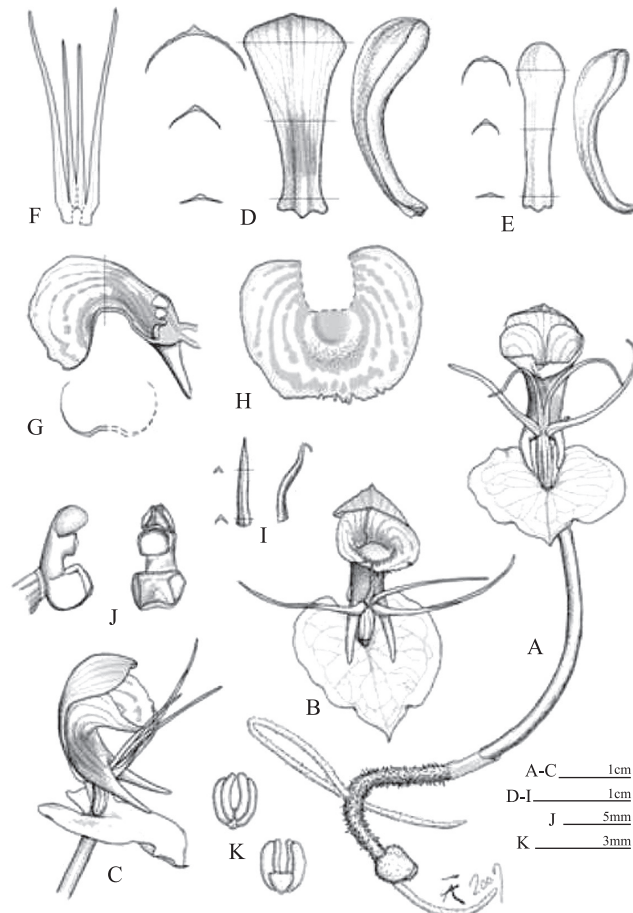


Fig. 2. *Corybas himalaicus* (King & Pantl.) Schltr. (A) habit; (B, C) leaf and flower, various views; (D) dorsal sepal, various views; (E) dorsal sepal of a smaller flower, various views; (F) connect petals and lateral sepals, flattened; (G) lip and column, longitudinal section; (H) lip, front portion, expanded; (I) floral bract, various views; (J) column with basal callus-like structure, various views; (K) pollinia with viscidium, various views.

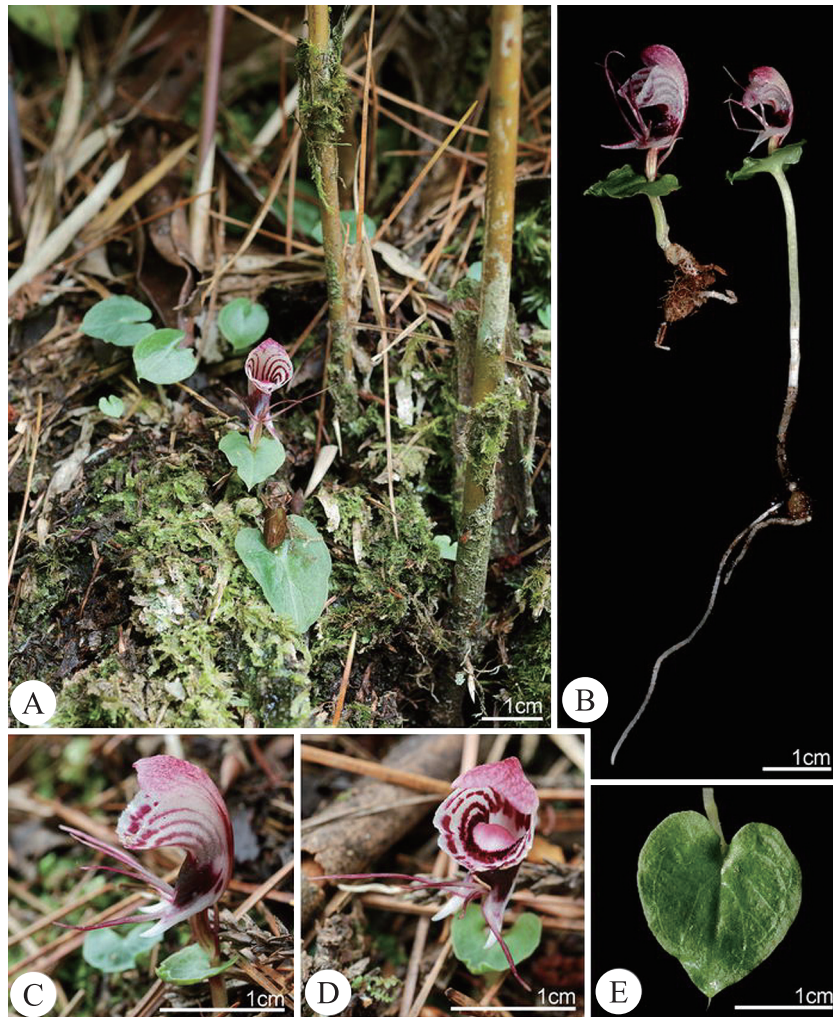


Fig. 3. *Corybas himalaicus* (King & Pantl.) Schltr. **A**, habitat and habits; **B**, habits, showing variations in plant and flower sizes; **C**, **D**, flower, various views; **E**, leaf, dorsal view.

long, white or greenish apically, violet-red in middle, whitish background with a violet-red line below; petals filiform, connecting with lateral sepals basally, slightly longer than lateral sepals, 12~20 mm long; lip orbicular in outline, about 5~9 mm across from front view, 8~14 mm wide when expanded, nearly entire or sparsely toothed at apex, lower portion incurved, connivent with base of dorsal sepal forming a tube-like structure, base decurrent into 2 short separated spurs, spurs

horn-like, 3~7 mm long, whitish, straight or slightly curved to exterior, limb expanded and recurved at apex, disc marked with parallel violet-red lines, surface papillose above, lip white with a conspicuous deeply crimson rounded callus at mouth of throat, distal portion of lip crimson. Column 2.3~3 mm long, ventral side of base decurrent into a protruding callus-like structure bearing a lip, lateral sepals and petals; anther terminal, erect, basally adnate to column, 0.8~1 mm long,

dark red; pollinia 4, in 2 pairs, yellow; stigma discoid. Flowering July to August.

Distribution. South Himalaya (Bhutan, Sikkim, and NE India); Taiwan, central mountainous regions, about 1900 m in elevation.

Specimens examined. Taiwan. Nantou Co., Chushan Town, Sanlinshi, 120°47'00"E, 23°36'30"N, elev. ca. 1900 m, 22 July 2006, locally frequent, moderate humidity, semi-shaded, *S. W. Chung & T. C. Hsu* 13356 (TAIF), *T. C. Hsu* 545 (TAI); same loc., 20 July 2007, *T. C. Hsu* 887, 888, 889 (TAIF).

This species can be easily distinguished from other members of *Corybas* by its lip with a conspicuously rounded callus at the mouth of the throat, the margins nearly entire, not toothed, crimson distal portion of lip, white patch at the throat, white margins of the lip, conspicuously marked with 4~5 parallel violet-red lines. Although with nearly identical habits, the 3 *Corybas* species in Taiwan can be easily distinguished by the floral characters listed in the key above.

The distribution pattern of *Corybas himalaicus* represents another example of disjunct distribution between Taiwan and the Himalayan region within the Eastern Asiatic Kingdom (Wu et al. 1998, Yukawa et al. 2003).

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