

Research note

## *Hetaeria Oblongifolia* (Bl.) Bl. (Orchidaceae), a Newly Recorded Orchid in Taiwan

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### 【 Summary 】

*Hetaeria*, comprising about 20 species, is a genus in the Orchidaceae. Two species were previously recorded in the 2nd edition of the Flora of Taiwan. One additional species, namely *Hetaeria oblongifolia* (Bl.) Bl., was found on the island of Lanyu, Taiwan. Morphological characters are described and illustrated after fresh material, also its habitat, flowering season are noted.

**Key words:** Orchidaceae, *Hetaeria oblongifolia*, flora of Taiwan, new record, taxonomy.

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研究簡報

## 台灣蘭科新記錄植物：長橢圓葉伴蘭

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### 摘 要

蘭科伴蘭屬植物約有20種，據台灣植物誌第二版記載，台灣有兩種該屬植物分佈。本文記述分佈於蘭嶼地區之一新記錄種，即「長橢圓葉伴蘭」，提供其生育地環境、花期、查證標本等資料，並依據新鮮標本做詳細之形態描述及繪製圖示。

**關鍵詞：**蘭科、長橢圓葉伴蘭、台灣植物誌、新記錄、分類學。

葉慶龍、葉川榮、柳重勝。2005。台灣蘭科新紀錄植物：長橢圓葉伴蘭。台灣林業科學20(4):355-9。

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## INTRODUCTION

The genus of the Orchidaceae *Hetaeria* is distributed from the Himalayan region, Southeast Asia to New Guinea, Australia, New Caledonia, and Fiji, and 2 species are known from Taiwan (Su, 2000). According to the present distribution areas (Ryukyu, Java) of *Hetaeria oblongifolia*, the 3 author predicted that this species would be also distributed in Taiwan. When the 1 and 2 authors went for field collection on 19 March 2005 on Lanyu (also known as Orchod Island and Botel Tobago, located off the southeastern coast of Taiwan), this new record species was found and the prediction was proven correct. This study provides a description, habitat illustrations, and photographs of *H. oblongifolia* to aid in its identification.

## RESULTS

### Habitat

In Taiwan, *Hetaeria oblongifolia* has presently been collected only in 1 place on Lanyu at an elevation of about 200 m, distributed on the windward side of the island in the understory of the forest. This type of rainforest has 2 strata. The upper canopy is about 9 m high, and dominant species include *Ardisia sieboldii*, *Diospyros maritima*, *Planchonella obovata*, and *Ficus benjamina*, accompanied by *Schefflera octophylla*, *Antidesma pleuricum*, *Linociera cumingiana*, *Glochidion lanceolatum*, *Syzygium tripinnatum*, *Elaeocarpus sphaericus*, etc. The dominant species of understory is *Psychotria manillensis*, accompanied by *Calamus siphonopathus* var. *sublaevis*, *Dracaena angustifolia*, and seedlings of *Tarennia zeylanica*, *Neolitsea villosa*, *Celtis philippensis*, and *Aglaia elliptifolia*.

### New Record OF *Hetaeria oblongifolia* in Taiwan

*Hetaeria oblongifolia* (Bl.) Bl., Fl. Java. Orch. 85, 1858; Garay, Orch. S. Ryukyu Isl. 91, 1974; Ying, Col. Ill. Ind. Orch. Taiwan I: 469, 1977; Seidenfaden, Dansk Bot. Arkiv 32(2): 96, f. 60, 1978; Ying, Col. Ill. Ind. Orch. Taiwan II: 559, 1990, non Bl.; Hashimoto, Jap. Ind. Orch. 124, 1991.

*Hetaeria oblongifolia* Bl., Bijdr. 8: 410, pl. 14, 1825.

A terrestrial herb, up to 50 cm tall. Stem erect, ascending from a creeping and rooting base (rhizome), 20–30 cm long, 0.4–0.7 cm in diameter, glabrous, succulent, light green, loosely 4–6-leaved at apex. Leaves simple, obliquely oblong, 8–11 cm long, 2.5–4.1 cm wide, apex acute, base obtuse or round, margin entire or with a few waves, deep green and lustrous on upper side, glabrous, 3-nerved; petioles 2.8–3.3 cm long, sheathed at base. In orescence spike, peduncle 16 cm long, hairy, with 4 sheathed bracts, bracts glabrous or very sparsely hairy outside, margins entire, bearing 3 light brown veins; rachis 8–10 cm long, 30–40-owered, hairy; oral bracts hairy outside, ciliate at middle and lower margins. Flowers non-resupinate, half-opened; ovary hairy, 4.5–5.5 mm long, erect on rachis; sepals subequal, round and concave at base, obtuse at apex, hairy outside, light yellowish green at base, white at apex, dorsal one shorter, 3.5 mm long, ovate, lateral ones longer at 4 mm, obliquely elliptic; petals free, oblanceolate or falcate, 4 mm long, white; lip cream-colored, glabrous, navicular, 4 mm long, saccate at base, 8–10 finger-like papillae within, thickened and trilobed toward apex, middle lobe sulcate, acute at apex, lateral lobes inrolled, thickened; column ~2.2 mm long, perpendicular to ovary, with 2 horn-like appendages on ventral side, appendages

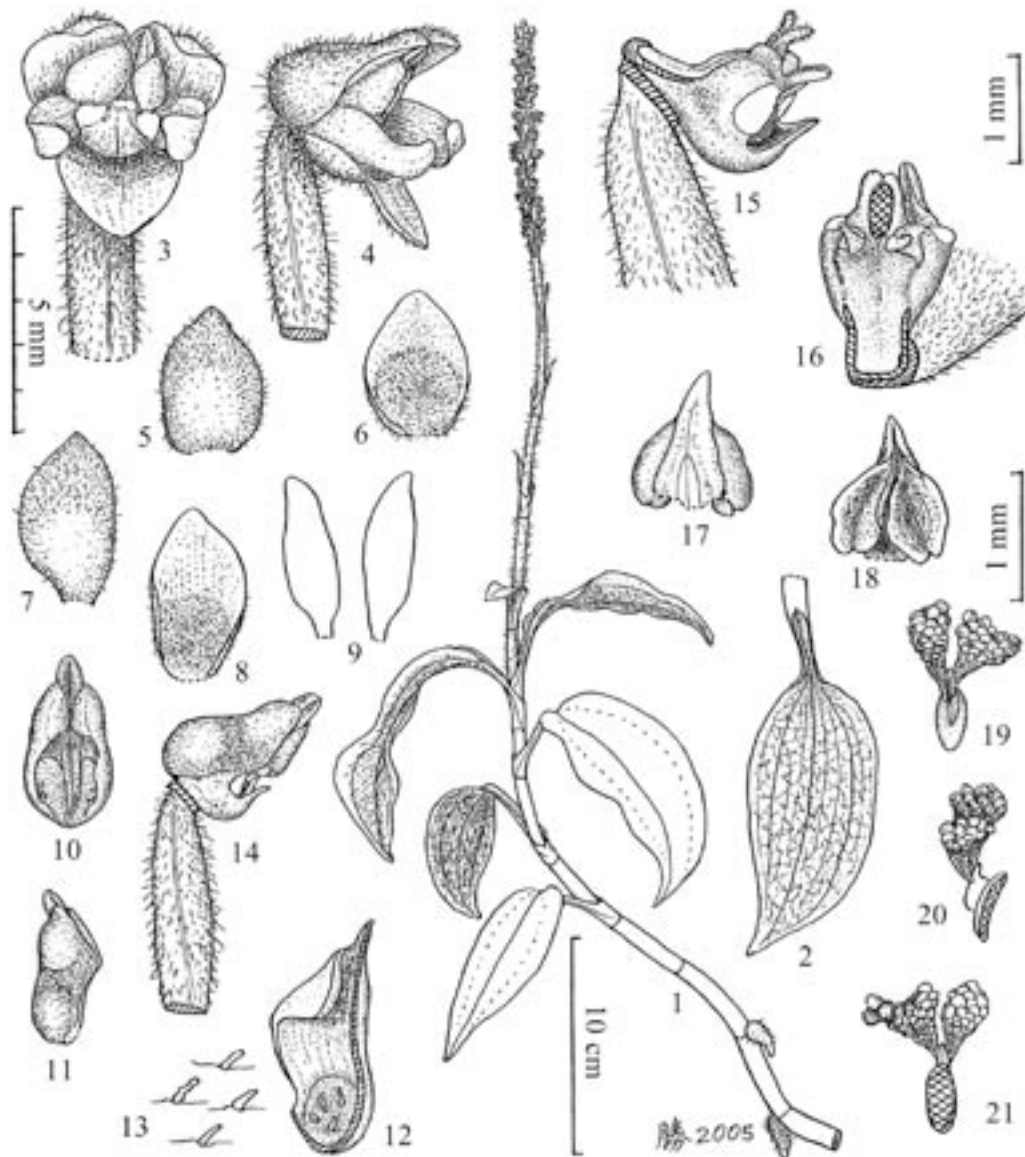
bearing sharp conical cells on surfaces; anther triangular, 1.2 mm tall, red at back; pollinia 2, clavate, attached to the fin-like back of tegula; stigma 2, on lateral side of column; rostellum

straight; tegula oblong, ~0.6 mm long, with a fin-like protrusion at abaxial side; viscidium oblong, (Figs. 1, 2).

Distribution: in mountain forest on



**Fig. 1.** *Hetaeria oblongifolia* (Bl.) Bl. (1) Habitat; (2) flower; (3) a portion of the inflorescence; (4) habit.



**Fig. 2.** *Hetaeria oblongifolia* (Bl.) Bl. (1) Habit; (2) leaf; (3) flower, front view; (4) flower, side view; (5) dorsal sepal, outside; (6) dorsal sepal, inside; (7) lateral sepal, outside; (8) lateral sepal, inside; (9) petals; (10) lip from above; (11) lip, side view; (12) lip, longitudinal section; (13) papillae; (14) gynostemium and lip, side view; (15) column, side view; (16) column, ventral view; (17) anther, outside; (18) anther, inside; (19) pollinarium, dorsal view; (20) pollinarium, side view; (21) pollinarium, ventral view.

western portion of the island of Lanyu (Orchid Island, Botel Tabago), Taiwan.

Flowering season: March to April.

Specimen examined: Taitung County: Lanyu, mountain rainforest, 200 m, *C. L. Yeh* & *C. R. Yeh s. n.*, Mar. 19, 2005 (PPI).

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