

Research note

## Nomenclature Changes of Some Orchids in China and Taiwan

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### 【 Summary 】

Nomenclature of some species in tribe Neottieae and subtribe Goodyerinae (Orchidaceae) from China and Taiwan are revised according to recently published phylogenetic and taxonomic studies. As *Listera* is now included in *Neottia*, 2 new names (*N. fukuyamae* and *N. chenii*) and 3 new combinations (*N. fangii*, *N. fugongensis* and *N. microphylla*) are proposed. The recently described *Chamaegastrodia nanlingensis* is transferred to *Odontochilus* based on its floral morphology. The new name, *O. guangdongensis*, is proposed to prevent homonymy after the combination.

**Key words:** China, *Neottia*, *Odontochilus*, Orchidaceae, Taiwan, taxonomy.

**Hsu TC, Chung SW. 2009.** Nomenclature changes of some orchids in China and Taiwan. Taiwan J For Sci 24(1):75-8.

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Received November 2008, Accepted February 2009. 2008年11月送審 2009年2月通過。

## 研究簡報

## 部分中國與台灣蘭科植物之學名修訂

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## 摘 要

本文依據近年譜系學以及分類學之研究成果，對若干產於中國與台灣之鳥巢蘭族與斑葉蘭亞族(蘭科)物種學名進行修訂。由於雙葉蘭屬須併入鳥巢蘭屬，本文提出二新名(大花雙葉蘭、巨唇對葉蘭)及三新組合名(方氏對葉蘭、福貢對葉蘭與小葉對葉蘭)。新近發表的南嶺疊鞘蘭依其花部形態應移入齒唇蘭屬，本文亦提出一新名以避免重新組合後產生之後出同名。

關鍵詞：鳥巢蘭屬、齒唇蘭屬、分類、蘭科、台灣、中國。

許天銓、鐘詩文。2009。部分中國與台灣蘭科植物之學名修訂。台灣林業科學24(1):75-8。

## INTRODUCTION

Recent morphological and molecular studies continue to reveal a variety of new and noteworthy information concerning the phylogeny and taxonomy of the Orchidaceae. Based on those studies, the nomenclature of several orchid species in China and Taiwan is revised in this paper.

Phylogenetic analysis of the Neottieae resulting from molecular data (Chase et al. 2003) has revealed that *Listera* is paraphyletic. Since there is no significant difference in floral morphology, the monophyletic *Neottia s.l.* including *Listera* and *Neottia s.s.* is then accepted (Chase et al. 2003, Wood 2005). Almost all nomenclature work has been done by Szlachetko (1995), and 2 *Listera* species from Taiwan were transferred to *Neottia* in another study we performed (Hsu and Chung 2009, in press). Here in, we propose new combinations for 3 *Listera* species from China. Two new names, *N. chenii* T.C. Hsu & S.W. Chung and *N. fukuyamae* T.C. Hsu & S.W. Chung, are respectively proposed to replace *Listera megalochila* (S.C. Chen) S.C. Chen & G.H. Zhu from China and *Neottia macrantha* (Fu-

kuy.) Szlach. from Taiwan because there are 2 earlier names, *N. megalochila* S.C. Chen and *N. macrantha* Sweet.

The newly described *Chamaegastrodia nanlingensis* H.Z. Tian & F.W. Xing (Tian and Xing 2008) belongs to a group of myco-heterotrophic species, including *Evrardia poilanei* Gagnep. and *C. asraoa* J. Joseph & Abbar., which was placed in *Chamaegastrodia* by some authors (Seidenfaden 1994, Lang 1999). We are of the opinion, however, that these species are just leafless members of *Odontochilus* rather than true members of *Chamaegastrodia* (Ormerod 2002, Ormerod and Cribb 2003). The flower of *C. nanlingensis* has a relatively large, long clawed lip and a pair of ventral appendages beneath the stigma, showing a closer relationship to some *Odontochilus* species, such as *O. elwesii* C.B. Clarke ex Hook.f., than to true members of *Chamaegastrodia*, such as the type species *C. shikokiana* Makino & F. Maek. Their morphological similarity may be the result of convergent evolution due to their myco-heterotrophic habit. A new name, *O. guang-*

*dongensis* T.C. Hsu & S.W. Chung, is proposed for *C. nanlingensis* because the name *O. nanlingensis* (L.P. Siu & K.Y. Lang) Ormerod already exists.

## TAXONOMIC TREATMENT

*Neottia chenii* T.C. Hsu & S.W. Chung, *nom. nov.*

Replaced name: *Listera grandiflora* Rolfe var. *megalochila* S.C. Chen, Acta Phytotax. Sin. 25(6):473. 1987. — *Listera megalochila* (S.C. Chen) S.C. Chen & G.H. Zhu, Novon 12(4):440. 2002. — TYPE: China, Sichuan: Dajin Xian, 2800 m, 27 June 1958, *X. Li* 77925 (holotype, PE) .....巨唇對葉蘭  
*Neottia fangii* (Tang & F.T. Wang ex S.C. Chen & G.H. Zhu) T.C. Hsu & S.W. Chung, *comb. nov.*

Basionym: *Listera fangii* Tang & F.T. Wang ex S.C. Chen & G.H. Zhu, Novon 12(4):438. 2002. — TYPE: China, Sichuan: Guang Xiang, 800~1000 m, 14 July 1928, *W. P. Fang* 2204 (holotype, PE) .....方氏對葉蘭  
*Neottia fugongensis* (X.H. Jin) T.C. Hsu & S.W. Chung, *comb. nov.*

Basionym: *Listera fugongensis* X.H. Jin, Brittonia 59(3):243. f. 1. 2007. — TYPE: China, Yunnan: Fugong County, east slope of Gaoligongshan Mts. 2940 m, 27 Aug. 2005, *X. H. Jin* 7914 (holotype, KUN) .....福貢對葉蘭  
*Neottia fukuyamae* T.C. Hsu & S.W. Chung, *nom. nov.*

Replaced name: *Listera macrantha* Fukuy., Ann. Rep. Taihoku Bot. Gard. 3:86. 1933. *Neottia macrantha* (Fukuy.) Szlach., Fragm. Florist. Geobot. Supp. 3:117. 1995. non Sweet, 1830. — TYPE: Taiwan: Nankotaizan, July 1933, *Fukuyama* 4140 (holotype, KPM).....大花雙葉蘭  
*Neottia microphylla* (S.C. Chen & Y.B. Luo) T.C. Hsu & S.W. Chung, *comb. nov.*

Basionym: *Listera microphylla* S.C.

Chen & Y.B. Luo, Novon 12(4):438. 2002. — TYPE: China, Yunnan: Gong Shan Co., 2500 m, Oct. 1935, *C. W. Wang* 67264 (holotype, PE).....小葉對葉蘭  
*Odontochilus guangdongensis* T.C. Hsu & S.W. Chung, *nom. nov.*

Replaced name: *Chamaegastrodia nanlingensis* H.Z. Tian & F.W. Xing, Novon 18(2):261-263. 2008. — TYPE: China, Guangdong, Ruyuan, Nanling National Nature Reserve, 1320 m, 7 Aug. 2004, *H.Z. Tian* & *C.H. Li* 67 (holotype, IBSC)....南嶺疊鞘蘭

## ACKNOWLEDGEMENTS

We are grateful to the anonymous reviewers for their critical reading of our manuscript and for offering useful suggestions.

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