

Orchidaceous Additions to the Floras of China and Taiwan

Paul Ormerod⁽¹⁾

(Manuscript received 18 February, 2003; accepted 3 April, 2003)

ABSTRACT: Literature and herbarium studies of Chinese and Taiwanese orchids has revealed a variety of new and noteworthy data pertinent to the floras of China and Taiwan. Three new combinations are proposed, viz. *Anoetochilus baotingensis*, *Oberonia sinica* and *Odontochilus nanlingensis*.

KEY WORDS: Orchidaceae, Additions, China, Taiwan.

The intention of this paper is not only to add new records to the floras of China and Taiwan but also to add new and noteworthy information in regard to the synonymy and status of various taxa.

Anoetochilus baotingensis (K. Y. Lang) Ormerod, comb. et stat. nov.

Fig. 1

Basionym: *Anoetochilus roxburghii* (Wall.) Lindl. var. *baotingensis* K. Y. Lang, Acta Phytotax. Sin. 34, 5:557, 1996.

Type: China – Hainan, Po-Ting, 305m, 22 April 1935, *F. C. How* 72060 (holotype: PE, isotype: AMES!).

Terrestrial herb 15-17 cm tall in flower. Rhizome creeping, terete, internodes 10-15 mm long. Stem erect, 2-3 leaved, to 30 mm long. Leaves purplish-red, suborbicular, acute, to 30 mm long x 24.5 mm wide, petiole 2-3 mm long before dilating into sheath. Inflorescence pubescent, 90 mm long; peduncle 80 mm long; sheathing bracts three, scattered, ovate-lanceolate, acute 9-12 mm long; rachis few flowered, 10 mm long; floral bracts ovate-lanceolate, acute, 5-6 mm long. Pedicellate ovary cylindrical-fusiform, pubescent, to 8 mm long. Flowers externally pubescent, resupinate, white. Dorsal sepal ovate, acuminate, 6.5 mm long, 3.5 mm wide. Petals oblong-cuneate, apical third ligulate, acute, 6.5 mm long 2.5 mm wide. Labellum trilobed, 17.5 mm long; spur conical, obtuse, 3-3.5 mm long, interior of each side near entrance with a large circular carunculate appendage, hypochile rectangular, 5 mm long, 3 mm wide, with lateral lobes 1.5 mm wide; mesochile 3 mm long, each side with a flange splitting into three short linear filaments 2-3.5 mm long; epichile bilobed, lobules ligulate, obtuse, 8 mm long, 2.5 mm wide basally, 1.6 mm wide apically. Column 5-6 mm long, abruptly dilated from a narrow base, lobules in front of stigma lobes obliquely deltoid, subacute, projecting between sidelobes; column wings oblong-elliptic, obtuse.

Distribution: China – Hainan.

Notes: This species is not related to *A. roxburghii* (Wall.) Lindl., but it is instead a close relative of *A. lylei* Rolfe ex Downie from Burma, Thailand, and Vietnam. From *A. lylei* it is distinguished by the flowers having petals with a ligulate cauda, the lip with a larger flange

1. Paul Ormerod P. O. Box 8210 Cairns, Qld. 4870, Queensland, Australia. E-mail: niel@bigpond.com

and longer filaments, and the column bearing oblong-elliptic posterior wings. In *A. lylei* the petals lack a cauda, the lip has a short, barely lobulate flange and the column has flabellate posterior wings. I have supplied an expanded description and a figure of *A. baotingensis* since it was previously only briefly characterized.

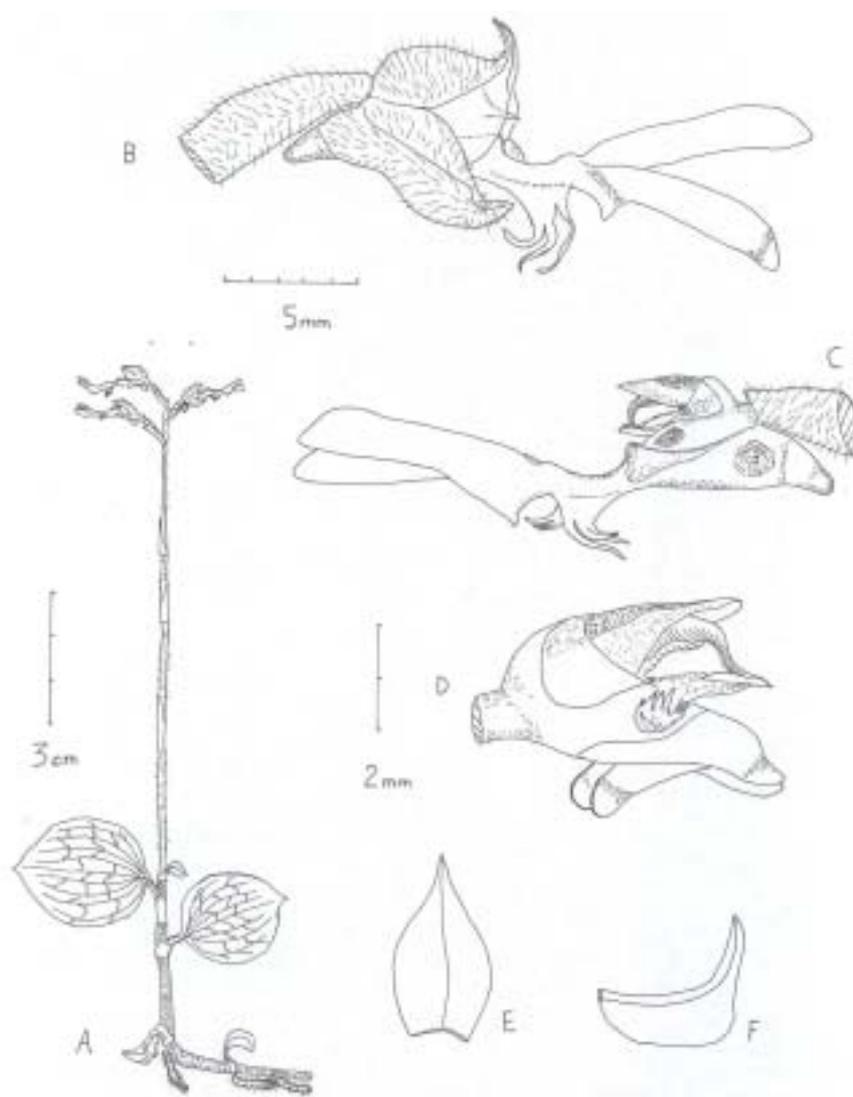


Fig. 1. *Anoectochilus baotingensis*. A. plant; B. flower; C. column and labellum; D. column; E. dorsal sepal; F. petal. A, BCEF, D to respective scales. Drawn from isotype.

Cheirostylis pusilla Lindl., Gen. Sp. Orch. Pl.: 489, 1840.

Type : NE India – Sylhet, *Wallich 7382* (holotype: K-L).

Distribution: NE India; SW China; Thailand; Peninsular Malaysia.

Occurrence: China – Yunnan, Nan-Chiao, 1280m, June 1936, *C.W. Wang 19662* (AMES).

Notes: This new record for China was found misdetermined under the genus *Myrmechis* (Lindl.) Blume at AMES. The specimen is sterile but the stem has the characteristic submarine-shaped internodes whilst those of *Myrmechis* species are always more or less terete.

Cymbidium faberi Rolfe, Bull. Misc. Inf. Kew: 198, 1896.

Type: China – Zhejiang, Mt. Tientai, *Faber 94 pp.* (lectotype: K!).

Eulophia yunnanensis Rolfe, J. Linn. Soc., Bot. 36:29, 1903. syn nov.

Type: China – Yunnan, Mengtze, 1830m, *Henry 11125* (holotype: K!, isotype: NY, photo at AMES!).

Distribution: Nepal; N India; S China; Taiwan.

Notes: The holotype of *Eulophia yunnanensis* consists of two inflorescences, one of which has open flowers but in a poor condition and the other with large, nearly mature flower buds. Study of these shows that *Eulophia yunnanensis* is referable to *Cymbidium faberi*. Tang and Wang (1951) listed *Semiphajus evrardii* Gagnep. from Vietnam as a synonym of *Eulophia yunnanensis*. The former taxon also belongs in *Cymbidium*, but I have not examined its type to determine which species is present.

Eulophia dentata Ames, Philipp. J. Sci., Bot. 6, 1:51, 1911 March.

Type: Philippines - Luzon, Bontoc Subprov., 26 January 1909, *Curran FB 17035* (holotype: AMES!).

Eulophia taiwanensis Hayata, J. Coll. Sci. Tokyo 30:333, 1911 June 20. syn. nov.

Types: Taiwan – Taito, Takai, January 1906, *Kawakami & Nakahara 684* (syntype: TI); Ako, 1906, *Kawakami & Mori 1087* (syntype: TI).

Distribution: Taiwan; Philippines.

Notes: Study of the type of *Eulophia dentata* leaves no doubt that *E. taiwanensis* is conspecific. A few other collections in AMES referred to *E. dentata* turned out to be *E. graminea* Lindl., along with one sheet that was *Pachystoma pubescens* Blume.

Goodyera clavata Pearce & Cribb, Edinb. J. Bot. 58, 1:116, 2001.

Figs. 2A-E

Basionym: *Goodyera grandis* King & Pantl., Ann. Roy. Bot. Gard. Calc. 8:284, t. 379, 1898 [non (Blume) Lindl. ex D. Dietr. 1852].

Type: India – Sikkim, Teesta Valley, Rumtek, 1220m, *Pantling 460* (holotype: CAL, isotypes: BM!, K!).

Goodyera grandis auct. non (Blume) Lindl. ex D. Dietr.: Lin. Nat. Orch. Taiwan 1:184, fig., ph. 44, fl. diss. 43, 1975.

Goodyera fumata auct. non Thwaites: Tsi & Chen, Acta Phytotax. Sin. 33, 3:293, 1995; Chen *et al.*, Nat. Orch. China in Colour: 242, 1999.

Distribution: NE India; SW China; Taiwan.

Occurrence: China – Yunnan, Che-li Hsien, Dah-meng-leng, 1100m, August 1936, *C. W. Wang 77897* (AMES; PE n.v.).

Taiwan – Ilan Hsien, Nanao Hsiang: Piyahao trail, 300 -345m, 18 August 1995, *T. Y. Liu 856* (AMES).

Notes: This species is here newly recorded from China and Taiwan. It is related to *Goodyera rubicunda* (Blume) Lindl. [Syn.: *G. grandis* (Blume) Lindl. ex D. Dietr.] from

which it is distinguished in having flowers with a shallowly saccate labellum terminated by an ovate-deltoid slightly recurved apex and a column which has a raised trapeziform callosity on its lower surface. In *G. rubicunda* the flowers have a deeply ventricose labellum terminated by a linear-ligulate revolute cauda whilst the column lacks a callosity on its lower surface. Another feature that I have noticed is that the leaves in herbarium material of *G. clavata* dry grey-green whilst those of *G. rubicunda* generally dry a deep red-brown.

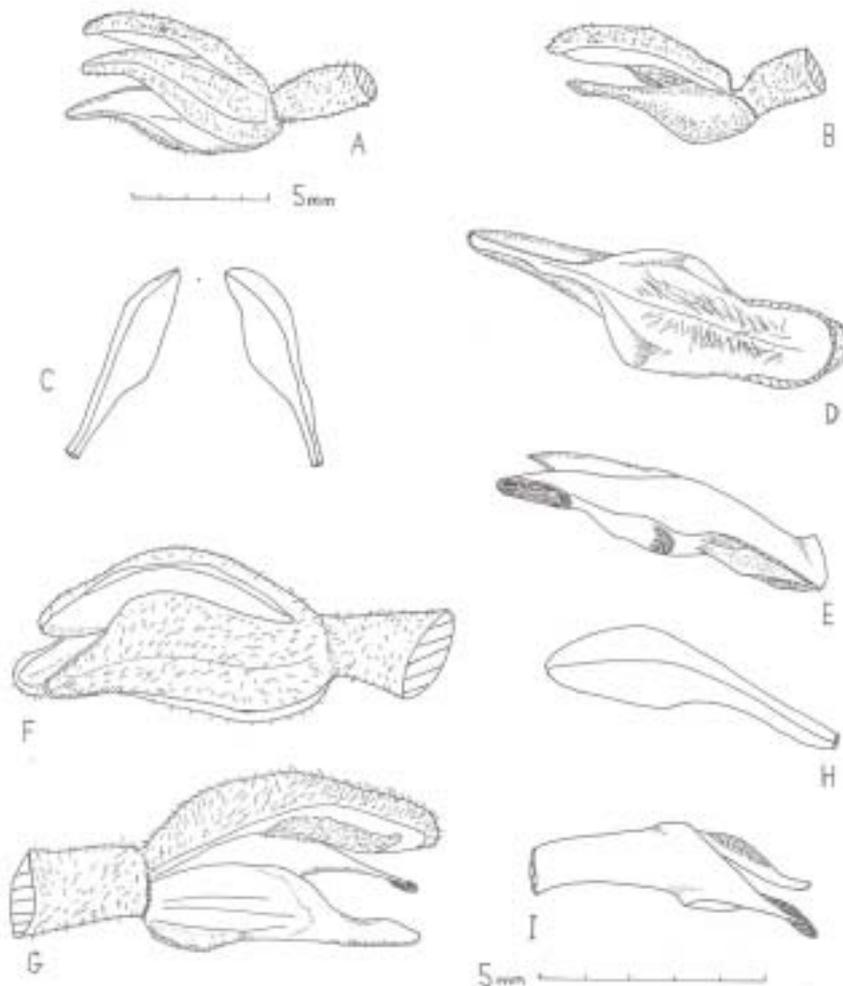


Fig. 2. A-E. *Goodyera clavata*. A. flower; B. flower minus lateral sepals; C. petals; D. labellum; E. column. F-I. *Goodyera longibracteata*. F. flower; G. flower minus lateral sepals; H. petal; I. Column. A-C, D-I to respective scales. A-E from Liu 856, F-I from Marziah *et al. s.n.*

It is not unlikely that either *G. longibracteata* or *G. longicolumna* Hayata, both described from Taiwan, will prove to be the earlier name for *G. clavata*. However, it must be stressed that three species could be involved in this complex and that the types of the two Taiwanese taxa must be carefully examined for I have seen from Luzon in the Philippines a collection (Marziah *et al. s.n.* SING) (Figs. 2F-I) which matched almost exactly the characters of *G. longibracteata* as illustrated by Hayata but which in my opinion did not seem to represent *G. clavata*. It seems this Philippine collection lacked a callosity under the column as appears to be also the case in Hayata's drawing of *G. longibracteata*. *Goodyera clavata* differs from *G. longibracteata* mainly by possessing this callosity on the lower surface of the column.

Listera longicaulis King & Pantl., J. As. Soc. Beng. 65, 2:126, 1896.

Type: India - Sikkim, Lachen Valley, 2135 m, *Pantling 391* (holotype: CAL, isotype: AMES!, BM, E, K, L, W).

Listera yuana T. Tang & F. T. Wang, Acta Phytotax. Sin. 1, 1:65, 1951. syn nov.

Type: China – Yunnan, Upper Kiukang Valley (Clulung), Singolila, 2500 m, 5 August 1938, *T. T. Yu 19644* (holotype: PE, isotype: AMES!).

Distribution: NE India; Bhutan; China.

Notes: Chen & Luo (in Lang *et al.*, 1999) list *Listera yuana* as a synonym of *L. pinetorum* Lindl. However, after analysing the description of *L. yuana* and comparing an isotype in AMES with type material of *L. longicaulis* I find the latter two to be conspecific. The figure called *L. longicaulis* by Chen & Luo (loc. cit.) shows a plant differing from that species in having suborbicular (not transversely elliptic-reniform) leaves and a relatively broader suborbicular (not broadly elliptic) lip. It is possible then that their “*L. longicaulis*” is another species.

Oberonia sinica (S. C. Chen & K. Y. Lang) Ormerod, comb. nov.

Basionym: *Hippeophyllum sinicum* S. C. Chen & K. Y. Lang, Acta Phytotax. Sin. 36, 1: 36, fig. 2, 1998.

Type : China – Gansu, Wudu County, Yu He, 1600m, 6 June 1979, *K. Y. Lang 1001* (holotype: PE).

Distribution: China – Gansu.

Notes: This transfer completes the removal from *Hippeophyllum* Schltr. of rhizomatous species of *Oberonia* Lindl. begun by myself (Ormerod, 2002) last year. Species of *Oberonia* with elongate rhizomes have also been described from New Guinea, e.g. *O. brevispica* Schltr., *O. repens* Schltr. and *O. rhizomatosa* J. J. Sm.

Odontochilus nanlingensis L. P. Siu & K. Y. Lang Ormerod, comb. nov.

Basionym: *Anoetochilus nanlingensis* L. P. Siu & K. Y. Lang, Acta Phytotax. Sin. 40, 2: 164, fig., 2002.

Type: China – Guangdong, Nanling National Nature Reserve, Tianjing Mt., 1560 m, 30 June 2000, *L. P. Siu GS-16-2000* (holotype: PE).

Distribution: China – Guangdong.

Notes: This is an unusual species of *Odontochilus* Blume section *Odontochilus* because of its small habit much like that found in the genus *Myrmechis* (Lindl.) Blume.

ACKNOWLEDGEMENTS

I wish to thank herbarium and library staff at AMES, BM and K for their hospitality during my visits. SING kindly loaned material.

LITERATURE CITED

- Lang, K.-Y., S.-C. Chen, Y. Luo and G.-H. Zhu. 1999. *Flora Reipublicae Popularis Sinicae* 17. Science Press Beijing. p. 111.
- Ormerod, P. 2002. Some brief notes on Taiwanese Orchids 1. *Taiwania* **47**: 239-245.
- Tang, T. and F.-T. Wang. 1951. On the identity of eight Gagnepain's Orchidaceous genera from Indo China. *Acta Phytotax. Sin.* **2**: 312-322.

中國與台灣蘭科植物誌新見聞

Paul Ormerod⁽¹⁾

(收稿日期：2003 年 2 月 18 日；接受日期：2003 年 4 月 3 日)

摘 要

研究標本館內中國與台灣之野生蘭的標本與文獻，發現一些新的與值得注意的資訊。本文提議三份新的組合學名，即：*Anoectochilus baotingensis*、*Oberonia sinica* 及 *Odontochilus nanlingensis*。

關鍵詞：蘭科、新見聞、中國、台灣。

1. Paul Ormerod P. O. Box 8210 Cairns, Qld. 4870, Queensland, Australia. E-mail: niel@bigpond.com