

*To be read  
with fastidious  
Pencil*

# The Orchid Review



Volume 120 No 1297  
March 2012



# A new species of *Calanthe*

PHILLIP CRIBB and  
DUDLEY CLAYTON  
describe and illustrate  
*Calanthe leonidii* from  
Vietnam, and discuss  
its affinities to the  
widespread *C. triplicata*



IN REVISING *Calanthe* for a monograph of the genus, a reassessment was made of the delimitation of the well-known and widespread *Calanthe triplicata* (Willem.) Ames. This has resulted in a number of new species being described by one of us (Cribb 2009a & b).

*Calanthe triplicata* was originally described by Willemet in 1796 as *Orchis triplicata* based on a specimen from Mauritius, and on Rumphius's *Flos triplicatus* described and illustrated in his posthumously published *Herbarium Amboinense* (1750). It is characterised by: small pseudobulbs bearing several evergreen, plicate leaves; an erect, many-flowered pubescent inflorescence with pubescent, lanceolate, spreading bracts; white flowers with a finely, shortly pubescent ovary; apiculate sepals that are abaxially pubescent; a lip that appears 4-lobed with spreading narrow side lobes and an anchoriform mid-lobe; a cylindrical spur shorter than the pedicel and



ovary; and a yellow, orange or red callus of three short ridges of warts. The nomenclature of *C. triplicata* is complex and, hopefully, we have resolved most of the issues in our revision of the genus.

#### New material from Vietnam

Recently, Professor Leonid Averyanov of the Komarov Botanical Institute of the Russian Academy of Science, in Saint Petersburg, sent us a number of images of Vietnamese *Calanthe* species. Among them was one determined as *C. triplicata* but with an unusual flower quite different

from typical *C. triplicata*. Additional information provided by him indicated that the species was first collected in the Lam Dong Province of Vietnam in April 1984. Part of the plant was removed for cultivation in the botanical garden of the Komarov Botanical Institute, where it flowered in October 1985. Additional material was preserved from the cultivated specimen at the herbarium. The full details were provided of the original herbarium specimen, its cultivated version and other specimens from Vietnam thought to be the same species. Our study of the material indicates it to be a new species very closely related to *C. triplicata*. A table overleaf compares *Coelogyne leonidii* and *C. triplicata*.

#### *Calanthe leonidii* P.J. Cribb & D.A. Clayton sp. nov.

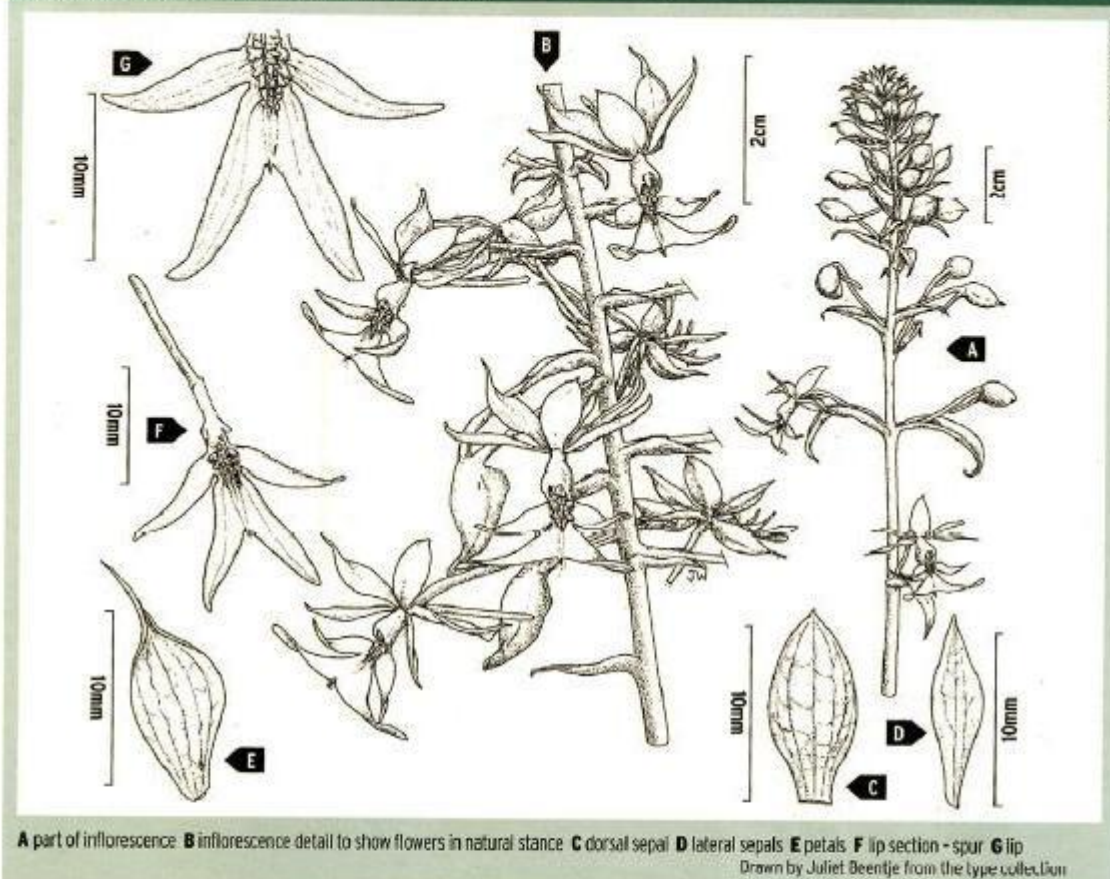
affinis *C. triplicata* (Willem.) Ames (sect. *Calanthe*) sed pedunculo bibracteis, rachidi usque ad 15cm longo, bracteis floralibus infimis usque ad 30 x 15mm, sepalis lateralibus cuspidatis, sepalo dorsali et petalis 10–11mm longis, petalis longitudine reflexis, labello mucronato lobis lateralibus acuminatis lobo medio T-forme satis differt. Type: Vietnam, Lam Dong Province, near Dalat City, Prenn Pass, 11 April 1984, L. Averyanov et al. LX-VN 1423 (holotype LE, photograph K!) and cult. Saint Petersburg, LX-VN 1423-III (clonotype LE, photograph K!).

#### Description

Terrestrial, possibly also lithophytic herb up to 50cm tall with pseudobulbs close together, each bearing 2–3 leaves. Leaves elliptic, acuminate, c. 35 x 8cm including petiole c. 12cm long, glabrous. Inflorescences 100cm or more long; peduncle with 2 spaced-out sheaths; rachis to 15cm, many-flowered; floral bracts lanceolate, acuminate, lower ones 30 x 15mm. Flowers with white





*CALANTHE LEONIDII* P.J. Cribb & D.A. ClaytonTABLE TO COMPARE THE CHARACTERS OF *CALANTHE LEONIDII* AND *C. TRIPLICATA*

CHARACTER	<i>CALANTHE LEONIDII</i>	<i>C. TRIPLICATA</i>
<b>Inflorescence</b>	peduncle with 2 well-spaced sheaths; rachis up to 15cm long, many-flowered; floral bracts lanceolate, acuminate, lower ones 30 x 15mm	peduncle with 3 spaced-out sheaths; rachis up to 25cm long, up to 35-flowered; floral bracts lanceolate, acute, lower ones 12 x 5mm
<b>Dorsal sepal</b>	11 x 5mm	15 x 5mm
<b>Lateral sepals</b>	orbicular to elliptic and distinctly cuspidate, reflexed, 16 x 6mm	elliptic, acuminate and apiculate, 15 x 5mm
<b>Petals</b>	longitudinally reflexed, 10 x 3mm	not reflexed, 15 x 6.5mm
<b>Lip</b>	side lobes obliquely narrowly triangular, apex acuminate, laterally reflexed, 10mm long, widest near the base, c.2mm; mid-lobe T-shaped, deeply divided into two diverging, linear to narrowly triangular acute lobes, 12 x 2mm, a distinct mucron at the sinus between the lobes	side lobes obliquely oblong, apex rounded, 10mm long, averaging 7.5mm in width; mid-lobe Y-shaped, deeply divided into two diverging, truncate lobes, lacking a mucron
<b>Callus</b>	3 undulate, warty keels extending from the base of the lip, the lateral keels more pronounced than median keel but the latter longer, extending 4mm	3 very short, tubercular, tapering ridges near base

or light green sepals and petals, and a white lip with a yellow callus. **Dorsal sepal** elliptic, acuminate and apiculate, 11 x 5mm, with 5 main nerves. **Lateral sepals** orbicular to elliptic and distinctly cuspidate, reflexed, 16 x 6mm, with 5 main nerves. **Petals** lanceolate from a narrow base, longitudinally reflexed, 10 x 3mm, with 3 main nerves. **Lip** 3-lobed; side lobes obliquely narrowly triangular, acuminate, laterally reflexed, 10mm long, widest near the base, c.2mm wide; mid-lobe deeply divided into two diverging, truncate to narrowly triangular lobes, 12 x 2mm, with a distinct mucron in the sinus between the lobes; callus of 3 undulate, warty keels extending from the base of the lip, the lateral keels more pronounced than the median keel but the latter longer, extending 4mm long; spur uniformly cylindrical along its length, c.11mm long. **Column** thickened apically from a narrow base, c.6mm long, 2mm across the apex. **Distribution** Vietnam (Kontum, Lam Dong and Ninh Thuan Provinces). **Habitat and Ecology** Terrestrial in deep shaded primary evergreen closed dry or wet forest with bamboo, on rocky mountain slopes composed of granite and on large boulders along rocky streams, also in secondary forest rich in primary elements; 600–1,200m above sea level. **Flowering time** March to April. **Etymology** Named after Professor Leonid Averyanov of the Komarov Botanical Institute of the Russian Academy of Science, in Saint Petersburg. He has been most helpful to us in our study of *Calanthe* by virtue of his deep knowledge of the orchids of Vietnam.

It is unfortunate that when first collected this specimen was named as *C. triplicata* as it has already been collected for commercial use and appeared in cultivation. The few existing sites were this interesting new species has been found need to be conserved. ■



*Calanthe triplicata*  
(Willemet) Ames from  
*Curtis's Botanical  
Magazine* Vol. 53  
(1826), 2615, as  
*Calanthe veratrifolia*  
(Willd.) R. Br. Dr.  
Greville del.

Reproduced with permission from the Royal Botanic Gardens, Kew

#### OTHER COLLECTIONS

**South Vietnam, Ninh Thuan Province**, Ninh Hai District, Vinh Hai Municipality, east slope on Nui Chua mountains, 600–700m, very common, 6 April 2004, *N.T. Hiep et al.* HLF 4678 (HN, LE)

**Dac Lac Province**, Krong Nang District, Ea Ho Municipality, Trap K' Sor, *Glyptostrobus pensilis* Reserve, c. 12°59'12"N, 108°16'50"E. Remnants of primary, seasonally wet swamp, coniferous forest with *Glyptostrobus pensilis* on swampy grey soils, 700m, 3 April 2008, not rare. *N.T. Hiep et al.* HAL 11397 (HN, LE)

**Kontum Province** west slope of Ngoc Linh mountain system above Ngoc Linh village, 1,300–1,400m, 6 April 1995, *Averyanov et al.* VH 1207 (HN, LE)

**Kontum Province**, north slope of Ngoc Linh mountain, 1,200m, 12 March 1995, *L. Averyanov et al.* VH 683 (HN, LE).

**PHILLIP CRIBB** is based at the Royal Botanic Gardens, Kew, and is currently working on Old World orchids, notably in Madagascar, and also on New World slipper orchids

**DUDLEY CLAYTON** is an Honorary Research Associate at the Royal Botanic Gardens, Kew, who has completed his work on *Calanthe* in association with Phillip Cribb

#### REFERENCES

- Cribb, PJ** (2009a) New species of *Calanthe* from the Malay Archipelago. *Malesian Orchid J.* 3: 89–104  
**Cribb, PJ** (2009b) New species of *Calanthe* from the Malay Archipelago and New Guinea. *Malesian Orchid J.* 4: 5–16.