

## NEW ORCHIDS IN THE FLORA OF VIETNAM 1

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**Abstract:** Identification of recently collected herbarium materials deposited in Herbarium of Institute of Ecology and Biological Resources of the National Center for Natural Science and Technology of Vietnam (HN) and Komarov Botanical Institute of the Russian Academy of Sciences (LE) results in discovery of four species of orchids new for Vietnamese flora. They are *Cephalantheropsis longipes*, *Coelogyne malipoensis*, *C. schultesii* and *Phaius longicruris*. Brief taxonomical information, data on ecology, distribution and studied herbarium samples are reported for each species.

1. **Cephalantheropsis longipes** (Hook.f.) Ormerod, 1998, Orchid Digest, 62, 4: 156. - *Calanthe longipes* Hook.f., 1890, Fl. Brit. Ind. 6: 195. - *Alismorkis longipes* (Hook.f.) Kuenze, 1891, Rev. Gen. 2: 650 (sub *Alismorchis* 1). - *Phaius mindorensis* Ames, 1907, Philipp. Journ. Sci. Bot. 2: 324. - *Calanthe dolichopoda* Fukuyama, 1935, Bot. Mag. (Tokyo), 49: 296. - *Phaius longipes* (Hook.f.) Holttum, 1947, Gard. Bull. Settl. 11: 286. - *Cephalantheropsis lateriscapa* Guillaum., 1960, Bull. Mus. Hist. Nat. (Paris), 2 ser., 32: 189. - *Calanthe gracilis* Lindl. var. *sumatrana* J.J. Smith, Blumea, 5, 3: 704 ? - *Gastorchis lateriscapa* (Guillaum.) Aver., 1988, Prelim. List. Vietnam. Orch., 1: 204.- Fig. 1.

**Locus classicus:** NE India: "India, Sikkim". **Type:** "King s.n." - location unknown (fide Ormerod, 1998).

**Ecology.** Terrestrial herb up to 0.8 m high. Primary broad-leaved, closed, shady, evergreen mountain forests and primary forest swamps with *Pandanus* sp. and *Livistona* sp. at 1250-1450 m. Locally common. Flowers in November - December.

**Distribution. Vietnam:** Kon Tum prov., Dac Glei distr. (about 15-18 km to NW of Dac Glei townlet, between Mang Khen (Dac Che) and Dac Poko villages, near Laos boundary; valley of Dac Poko river about 6-7 km to the S of Dac Glei townlet, near Dac Tung village). Lam Dong prov. (Lang Bian, 1500 m - fide Ormerod, 1998).- **NE India** (Sikkim, Assam), **Myanmar**, **S. China** (Yunnan, Kwangsi), **Taiwan**, **Philippines** (Luzon, Mindoro).

**Studied herbarium samples.** L. Averyanov, N.T.Hiep, P.K.Loc et al., 22.11.1995, **VH 1926**; L. Averyanov, N.T.Hiep, P.K.Loc et al., 9.12.1995, **VH 2404**.

**Notes.** Polymorphic taxon, variability of which gives no reasons to distinguish Vietnamese plants as a separate species, described under the name *Cephalantheropsis lateriscapa* Guillaum.

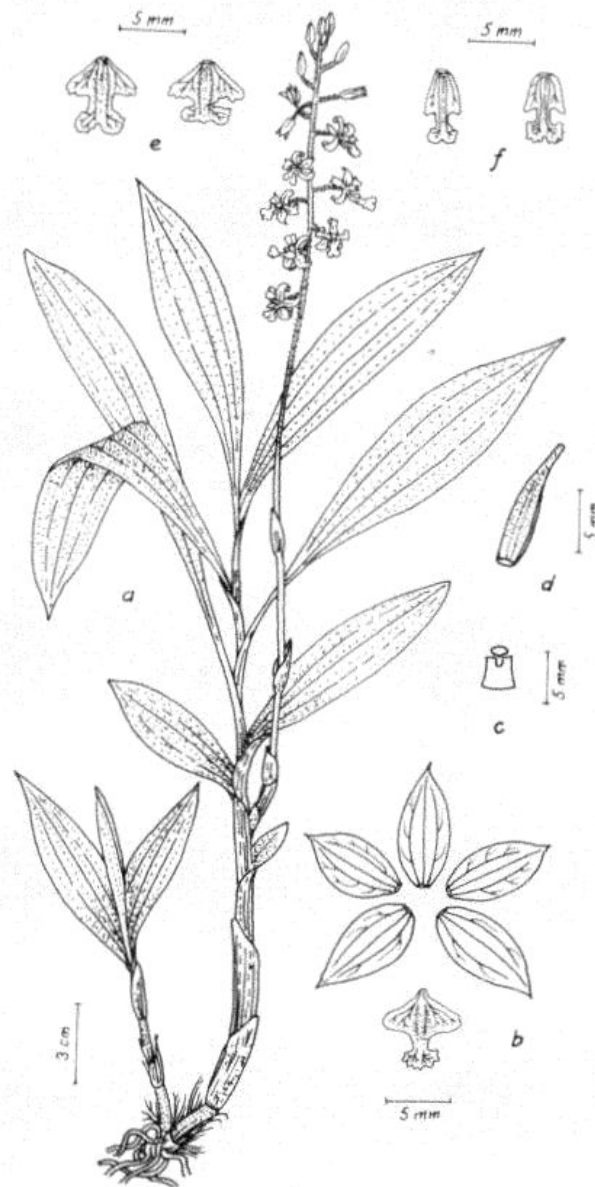


Fig. 1. *Cephalantheropsis longipes* (Hook.f.) Ormerod (a-e drawn from Averyanov et al., VH 1926; f - from Averyanov et al., VH 2404). a. Flowering plant; b. Flattened sepals, petals and lip; c. Column, front view; d. Capsule; e-f. Morphological variants of the lip.

2. *Coelogyne malipoensis* Z.H. Tsi, 1995, Bull. Bot. Res. 15, 1: 43.- Fig. 2.

**Locus classicus:** S. China: "Yunnan: Malipo, alt. 1400m, on limestone". **Type:** "13 Dec. 1992, Z.H. Tsi 92-129" - PE (holo).

**Ecology.** Lithophytic and occasionally epiphytic creeping herb. Primary open semideciduous mixed and coniferous mossy forests (usually with *Pseudotsuga brevifolia*) on rocky karst marble-like limestone at 1100-1450 m. Usually very common, locally abundant (especially along tops of ridges). Flowers in November - December.

**Distribution.** Vietnam: Cao Bang prov., Nguyen Binh distr. (Ca Thanh municipality, 3 km SW of Yen Lac village). Ha Giang prov., Meo Vac distr. (vicinity of

Meo Vac townlet, 48.2 km to 36<sup>0</sup> of Ha Giang town); Quan Ba distr. (Can Ti municipality, vicinity of Sin Xuoi Ho village, ca 26.2 km to 2<sup>0</sup> of Ha Giang town).- S. China (Yunnan).

**Studied herbarium samples.** *L. Averyanov, N.T.Hiep, P.K.Loc, N.X.Tam*, 15 XI 1998, *CBL 315*; *L. Averyanov, P.K.Loc, N.X.Tam*, 18 XI 1998, *CBL 395*; *N.T.Hiep, N.Q.Binh, L. Averyanov, P. Cribb*, 7 X 1999, *NTH 3436*; *N.T.Hiep, N.Q.Binh, L. Averyanov, P. Cribb*, 12 X 1999, *NTH 3575*.

**Note.** Very isolated species that shows certainly intermediate taxonomic position between genera *Coelogyne* Lindl. and *Chelonistele* Pfitz.



Fig. 2. *Coelogyne malipoensis* Z.H. Tsi (drawn from *Averyanov et al.*, *CBL 315*). a. Flowering plant. b. Flattened sepals, lateral petal and lip. c. Column and lip, side view. d. Column, front and side views. e. Capsule, view from the apex.

3. *Coelogyne schultesii* Jain et Das, 1978, *Proc. Ind. Acad. Sci.*, B, 87, 5: 119, 121. Fig. 3.

**Locus classicus:** NE. India: "India. Khasia Hills, Cherrapunjee". **Type:** "Das 60256" - CAL, holo, ASSAM, iso (fide Ormerod, 1997).

**Ecology.** Epiphyte on high trees and lithophytic creeping herb on mossy rock outcrops. Primary evergreen broad-leaved and mixed (usually with *Tsuga chinensis*, *Pinus kwangtungensis* or *P. kesiya*) wet mossy mountain forests on rocky limestone, schist and granite at 900-1600 m. Usually common, locally abundant (especially along tops of ridges). Flowers in April - June.

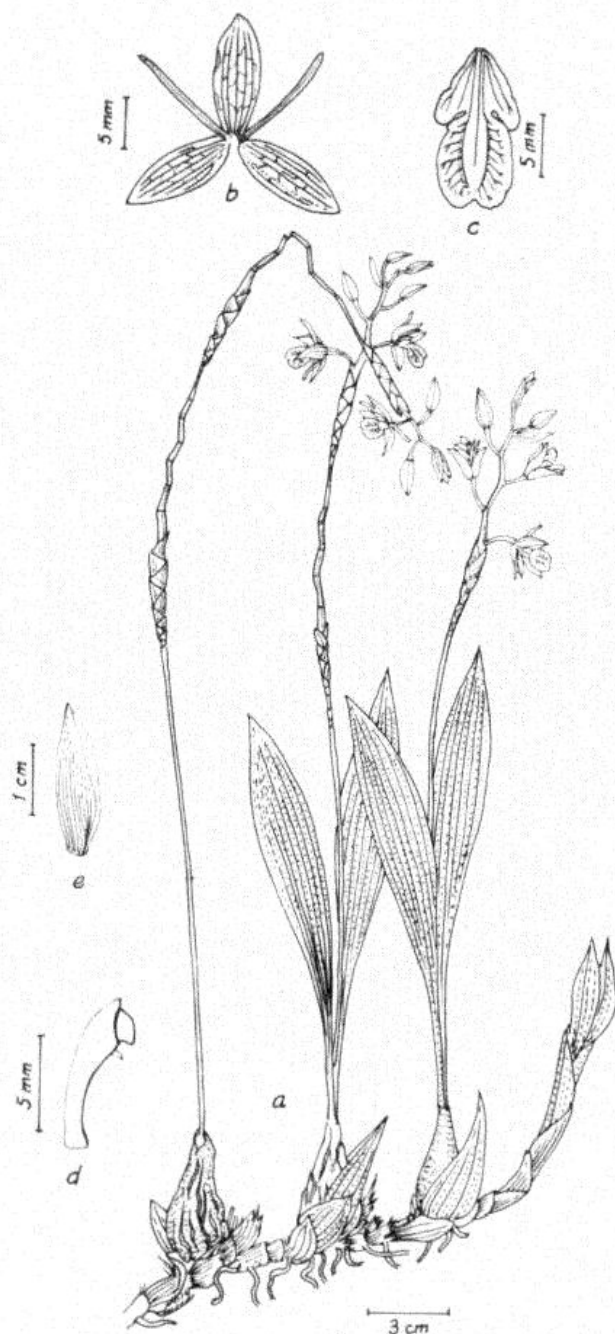


Fig. 3. *Coelogyne schultesii* Jain et Das (drawn from P.K.Loc et al., CBL 1939). a. Flowering plant. b. Flattened sepals and petals. c. Flattened lip. d. Column, side view. e. Floral bract.

**Distribution.** Vietnam: Ha Giang prov., Quan Ba distr. (near Quyet Tien village); Yen Minh distr. (Du Gia municipality, E slopes of Pu Tha Ca mountain system; Lao Va Chai municipality, vicinity of Ngan Chai village, 6 km to W of Yen Minh townlet).

Kon Tum prov., Dac Glei distr. (about 10-12 km to the SE of Dac Glei town, 4-6 km to the E of Dac Tung village).- Nepal, Bhutan, NE India, SW China (Yunnan), Myanmar, Thailand, Laos?

Studied herbarium samples. *L.Averyanov, N.T.Hiep, D.D.Huyen, 22X 1995, HG 87*; *L.Averyanov, N.T.Hiep, P.K.Loc et al., 6 XII 1995, VH 2365*; *P.K.Loc, P.H.Hoang, L.Averyanov, 1 V 1999, CBL 1939*; *P.K.Loc, P.H.Hoang, L.Averyanov, 3 V 1999, CBL 2092*.

4. *Phaius longicruris* Z.H. Tsi, 1981, Acta Phytotax. Sin., 19, 4: 505. - *Ph. mishmensis* (Lindl. et Paxt.) Rchb.f. var. *tonkinensis* Aver., 1997, Bot. Journ. (St.-Petersburg), 82, 3: 133. Fig. 4.

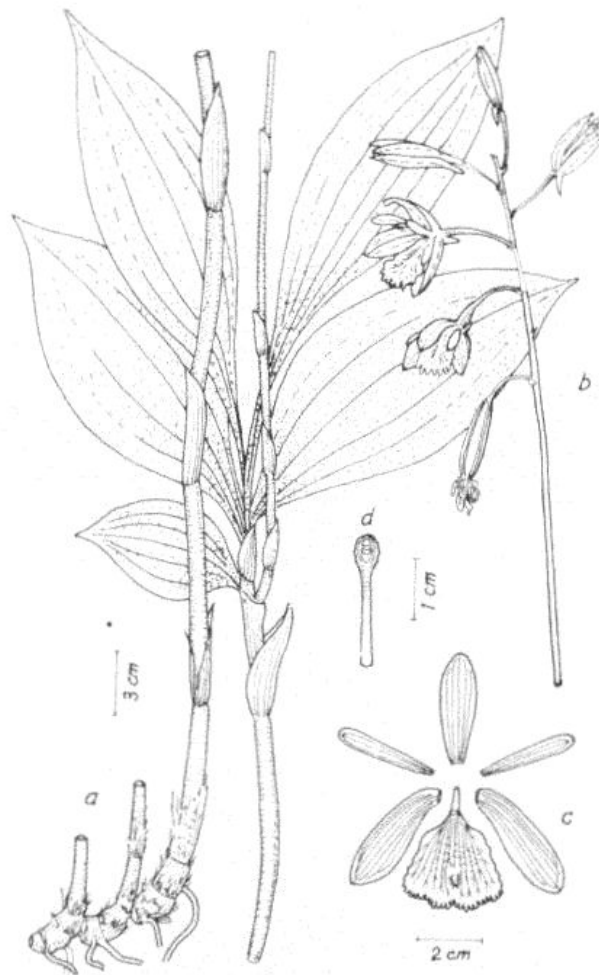


Fig. 4. *Phaius longicruris* Z.H. Tsi (drawn from Averyanov et al., CB 018). a. Flowering plant. b. Inflorescence. c. Flattened sepals, petals and lip. d. Column, front view.

**Locus classicus:** SW China: "Yunnan: Jinghong, alt. 1400 m, in silva, ...".

**Type:** "Oct. 1936, *C.W.Wang 79184*" - PE (holo).

**Ecology.** Terrestrial and occasionally lithophytic herb 1-1.5 m hg. Primary, shady, evergreen, humid, closed, broad-leaved and mixed forests on rocky karst marble-like limestone at 250-1000 m. Usually not rare. Flowers in October-December.

**Distribution.** Vietnam: Bac Can prov., Na Ri distr. (Kim Hy municipality, vicinity of Lung Hin Con village, 27 km to 55<sup>0</sup> of Bac Can town). Cao Bang prov.,

Tra Linh distr. (Quang Vinh municipality, about 21 km N of Cao Bang town; Quoc Toan municipality, Lung Tao village; Quoc Toan municipality, Thang Heng and Lung Tao villages near Thang Heng lake; Quoc Toan municipality, vicinity of Lung Tao village, about 12 km from Cao Bang town to the NNE). Ha Giang prov., Quan Ba distr. (Can Ti municipality, vicinity of Sin Xuoi Ho village, 26.2 km to 2<sup>0</sup> of Ha Giang town). Lang Son prov., Huu Lung distr. (Huu Lien municipality).- SW China (Yunnan).

**Studied herbarium samples.** *L.Averyanov, N.T.Hiep, D.D.Huyen*, 22 X 1995, *CB 18*; *L.Averyanov, N.Q.Binh, N.T.Hiep, N.X.Tam*, 10 XII 1998, *CBL 1031*; *N.T.Hiep, N.Q.Binh, P.K.Loc, N.X.Tam, L.Averyanov*, 14 XII 1998, *CBL 1253*; *N.T.Hiep, N.Q.Binh, L.Averyanov, P.Cribb*, 1 X 1999, *NTH 3255*; *N.T.Hiep, N.Q.Binh, L.Averyanov, P.Cribb*, 12 X 1999, *NTH 3563*; *N.T.Hiep, P.K.Loc, L.Averyanov*, 19 X 1999, *NTH 3687*; *N.T.Hiep, P.K.Loc, L.Averyanov*, 20 X 1999, *NTH 3732*.

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## References

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TẠP CHÍ KHOA HỌC ĐHQGHN, KHTN, t.XVII, n<sup>0</sup>2 - 2001

## MỘT SỐ LOÀI LAN (ORCHIDACEAE) MỚI CỦA HỆ THỰC VẬT VIỆT NAM 1.

L.V. Avêrianốp

*Viện thực vật học Cômarốp, Viện Hàn lâm khoa học Liên Bang Nga*

Kết quả xác định tên các mẫu vật khô được thu thập gần đây và lưu trữ tại các Tập mẫu thực vật khô của Viện Sinh thái và Tài nguyên sinh vật thuộc Trung tâm Khoa học Tự nhiên và Công nghệ Quốc gia (HN) và Viện thực vật học Cômarốp thuộc Viện Hàn lâm khoa học Liên bang Nga (LE) đã phát hiện được 4 loài mới đối với hệ thực vật Việt Nam. Đó là *Cephalantheropsis longipes* (Hook.f.) Ormerod, *Coelogyne malipoense* Z.H. Tsi, *Coelogyne schultesii* Jain et Das và *Phajus longicruris* Z.H. Tsi. Trong bài báo đã chỉ ra những thông tin ngắn gọn về phân loại học, các dẫn liệu về sinh thái, phân bố và các mẫu vật nghiên cứu của từng loài.