

**FASCICLES  
OF  
FLORA OF INDIA**

**FASCICLE 5**

**ORCHIDACEAE : GENUS—COELOGYNE**

**SANDHYAJYOTI DAS AND S. K. JAIN**



**BOTANICAL SURVEY OF INDIA  
P. O. BOTANIC GARDEN  
HOWRAH-711103**

## **EDITORIAL BOARD**

<b>DR. S. K. JAIN</b>	<b>Chairman</b>
<b>DR. A. S. RAO</b>	<b>Member</b>
<b>DR. G. PANIGRAHI</b>	<b>..</b>
<b>DR. N. C. NAIR</b>	<b>..</b>
<b>DR. M. P. NAYAR</b>	<b>..</b>
<b>DR. B. D. SHARMA</b>	<b>..</b>
<b>DR. K. THOTHATHRI</b>	<b>Secretary</b>

**FASCICLES  
OF  
FLORA OF INDIA**

**FASCICLE 5**

**ORCHIDACEAE : GENUS - COELOGYNE**

**SANDHYAJYOTI DAS AND S. K. JAIN**



**BOTANICAL SURVEY OF INDIA  
P. O. BOTANIC GARDEN  
HOWRAH-711103**

© Government of India 1980

Price : Rs. 14.00 ; £ 2.00 ; \$ 4.00

Printed by S. K. Nandi at Prabartak Printing & Halftone Ltd., 52/3, Bepin Behari Ganguly  
Street, Calcutta-700012 and Published by the Director, Botanical Survey of India,  
P.O. Botanic Garden, Howrah-711103.

## CONTENTS

ORCHIDACEAE : GENUS—COELOGYNE (SANDHYAJYOTI DAS AND S. K. JAIN)	1-31
INDEX TO SCIENTIFIC NAMES	32-33

Date of Publication : 30th June, 1980

ORCHIDACEAE † : GENUS — COELOGYNE

SANDHYAJYOTI DAS\* AND S. K. JAIN\*\*

COELOGYNE LINDL.

Coll. Bot. tab. 33 (textus). 1821; Benth. & Hook. f. Gen. Pl. 3 : 518.1883; Pfitz. & Kranzl. in Engler, Pflanzenr. 32. 1907; Seidenfaden in Dansk Bot. Ark. 29(4). 1975.

Epiphytic herbs. Rhizome covered with scales. Pseudobulbs ovoid to variously shaped, sheathed with scales. Leaves 2, rarely 1 or 3, sessile to long-petioled, coriaceous, rarely membranous. Inflorescence terminal or lateral to mature pseudobulb, hysteranthous, proteranthous or synanthous. Flowers usually in racemes or 1-2, white or creamy, greenish-yellow or brown. Sepals oblong-lanceolate to elliptic or ovate. Petals narrower than sepals to filiform. Labellum sessile to the base of column, concave, lacking spur, deeply or obscurely 3-lobed; lateral lobes clasping the column; mid-lobe spreading or recurved; keels 2-7; column without foot, winged. Anther 1, 2-chambered. Pollinia 4, attached in two pairs to the granular caudicle. Capsules ellipsoid, ridged.

*Distrib.* : ca. 260 species in Indian subcontinent (including Sri Lanka) up to 2500 m, through Burmese and Indo-Chinese region to southeast Asia. 34 species in India; 7 endemic.

*Notes* : The genus is of horticultural importance; a dozen species and cultivars are grown for their handsome, large, usually white to variously blotched flowers. The National Orchidarium at Shillong has a collection of ca. 400 plants belonging to 27 species.

*Coelogyne punctulata* Lindl. is the type species. Species assigned to *Neogyne* Reichb., *Pleione* Don and *Panisea* Lindl. are excluded in this account.

Of the 14 sections given by Pfitzer & Kranzlin (l.c.), the following nine are represented in India.

---

† Editor for Fam. Orchidaceae : A. S. RAO, Botanical Survey of India, Howrah-711103.

\* Botanical Survey of India, Shillong-793003.

\*\* Botanical Survey of India, Howrah-711103.

- 1a. Flowers mostly opening successively, only one or a few at a time (except *C. micrantha*):
  - 2a. Scape at base with enveloping glumes; flowers showy, often marked with yellow or brown ...Sect. 6. **Fuliginosae**
  - 2b. Scape at base naked, but with a series of distichous glumes just below the rachis; flowers not showy ...Sect. 1. **Ancipites**
- 1b. Flowers mostly all opening at the same time (except sometimes in *C. barbata*):
  - 3a. Scape naked from base to just below the rachis where there are many close distichous glumes:
    - 4a. Inflorescence bears flowers only once, no distichous glumes at the apex of rachis .. Sect. 5. **Elatae**
    - 4b. Inflorescence bears flowers successively year after year, the apex of the rachis remains covered with a few distichous glumes from which a new rachis develops in the following year ...Sect. 9. **Proiferae**
  - 3b. Scape not as above; glumes or sterile bracts if present, not distichous:
    - 5a. Scape between the pseudobulb (or undeveloped pseudobulb) and the lowest flowering bract naked, rarely with sterile bract or glumes. Lip without keels or with unbroken undulate or crenulate keels:
      - 6a. Dorsal sepal larger than the laterals, close to the columna ...Sect. 7. **Fuscescentes**
      - 6b. Dorsal sepal equal to or smaller than the laterals, not close to the column:
        - 7a. Labellum thin and membranous at margins ...Sect. 8. **Lentiginosae**
        - 7b. Labellum of uniform texture ...Sect. 2. **Carinatae**
    - 5b. Scape between the pseudobulb (or undeveloped pseudobulb) and the lowest flowering bract usually with few glumes or one or more sterile bracts, rarely naked. Lip with blotches and laciniate or warty keels or rarely with unbroken undulate insignificant keels:
      - 8a. Blotches on the lip bordered, keels crenulate ...Sect. 3. **Coelogyne**
      - 8b. Blotches on the lip not bordered, keels more or less laciniate or fimbriate ...Sect. 4. **Cristatae**

Section 1. **Ancipites** Pfitz. & Kranzl. in Engler Pflanzenr. 32 : 39. 1907.  
One species ...12. **C. griffithii**

Section 2. **Carinatae** Pfitz. ex Pfitz. & Kranzl. in Engler Pflanzenr. 32 : 47.  
1907.

1a. Mid-lobe of labellum broad, obtuse, emarginate, retuse  
...31. **C. thailandica**

1b. Mid-lobe of labellum with a triangular acute tip:

2a. Keels extending almost up to the apex of mid-lobe  
...27. **C. rossiana**

2b. Keels extending up to the base or slightly above the base of  
mid-lobe:

3a. Inflorescence 2-4-flowered, flowers white; leaves linear  
...34. **C. viscosa**

3b. Inflorescence up to 12-flowered, flowers creamy white; leaves  
elliptic oblong:

4a. Lateral lobes of labellum with dichotomously branched,  
reddish-brown streaks, golden yellow at apex  
...8. **C. flaccida**

4b. Lateral lobes of labellum without reddish-brown streaks,  
their greater part deep yellow ...1. **C. albo-lutea**

Section 3. **Coelogyne**

1a. Inflorescence terminal to the mature pseudobulb; hysteranthous;  
peduncle without any glumes, the lowest bract sterile  
...24. **C. punctulata**

1b. Inflorescence lateral to the mature pseudobulb; proteranthous or syn-  
anthous; peduncle sheathed at base, often accompanied by the two  
new leaves :

2a. Pseudobulbs oblong-subquadrangular; leaves narrowly oblong;  
racemes several-flowered ...19. **C. nitida**

2b. Pseudobulbs elliptic-turbinate; leaves elliptic-oblong; raceme  
1-5-flowered:

3a. Mid-lobe of labellum undulate or frilled; the middle keel  
extending beyond the yellow blotch which is large and  
continuous ...13. **C. hitendrae**

3b. Mid-lobe of labellum entire; keels not extending beyond  
the yellow blotches; blotches distinct:

- 4a. Peduncle completely enclosed by the tips of the two new leaves; flowers 3-4 cm across, inodorous  
...20. *C. occultata*
- 4b. Peduncle not completely enclosed; flowers more than 4 cm across, fragrant  
...5. *C. corymbosa*

Section 4. **Cristatae** Pfitz. ex Pfitz. & Kranzl. in Engler Pflanzenr. 32 : 60. 1907.

- 1a. Flowers 6-9 cm across; dorsal sepal 4-6 cm long; sepals and petals undulate; keels on labellum deeply fimbriate  
...6. *C. cristata*
- 1b. Flowers less than 5 cm across; dorsal sepal not more than 3.5 cm long; sepals and petals not undulate; keels crenulate or glandular:
  - 2a. Pseudobulbs rugose; young leaves along the scape almost fully formed  
...18. *C. nervosa*
  - 2b. Pseudobulbs ridged; young leaves along the scape only partly exerting  
...11. *C. glandulosa*

Section 5. **Elatae** Pfitz. ex Pfitz. & Kranzl. in Engler Pflanzenr. 32 : 78. 1907.

- 1a. Inflorescence erect in bud; when in flower the peduncle erect but the rachis pendulous; flowers yellowish or pale  
...26. *C. rigida*
- 1b. Inflorescence erect; rachis not pendulous; flowers white:
  - 2a. Dorsal sepal 3.0-4.5 cm long; labellum brown; mid-lobe and tips of lateral lobes deeply fimbriate  
... 3. *C. barbata*
  - 2b. Dorsal sepal less than 2.5 cm long; labellum tinged with yellow, entire:
    - 3a. Labellum 3-lobed; keels 2, crenulate  
...29. *C. stricta*
    - 3b. Labellum obscurely 3-lobed or almost entire; keels 3, strongly wavy at base, the middle keel shorter  
...14. *C. holochila*

Section 6. **Fuliginosae** Pfitz. & Kranzl. in Engler Pflanzenr. 32 : 33. 1907. (*Filiferae* Lindl. Fof. Orch. Coelog. 11. 1854, *pro parte*)

- 1a. Flowers all opening simultaneously; labellum with tuberculate keels  
...16. *C. micrantha*
- 1b. Flowers opening successively, usually one open at a time; labellum with lamillate or smooth keels:
  - 2a. Mid-lobe of labellum rhomboid, entire and obtusely 3-fid at apex; keels confined to hypochile only  
...32. *C. treutleri*

- 2b. Mid-lobe of labellum rounded or oblong, fimbriate, not trifold; keels extending to epichile:
  - 3a. Dorsal sepal *ca.* 20 (16-24) mm long, often with additional small keels on epichile of labellum ...7. *C. fimbriata*
  - 3b. Dorsal sepal more than 30 (30-45) mm long, without any additional keel on labellum:
    - 4a. Keels interrupted and straight on hypochile, sometimes partly missing, slightly above the base  
...9. *C. fuliginosa*
    - 4b. Keels continuous and wavy ...22. *C. ovalis*

Section 7. **Fuscescentes** Pfitz. ex Pfitz. & Kranzl. in Engler Pflanzenr. 32 : 42. 1907 (*Filiferae* Lindl. Fol. Orch. Coelog. 11. 1854, *pro parte*)

- 1a. Labellum 3-4 cm long; the 3 keels subequal ...10. *C. fuscescens*
- 1b. Labellum less than 3 cm long; the median keel shorter than the laterals  
...2. *C. assamica*

Section 8. **Lentiginosae** Pfitz. ex Pfitz. & Kranzl. in Engler Pflanzenr. 32 : 49. 1907.

- 1a. Pseudobulbs caespitose; labellum with 3 keels:
  - 2a. Inflorescence 2-4-flowered; labellum with crenulate keels  
...21. *C. odoratissima*
  - 2b. Inflorescence always 1-flowered; labellum with smooth or rounded keels  
...33. *C. uniflora*
- 1b. Pseudobulbs serially arranged, ridged; labellum with 2 or 5 keels:
  - 3a. Flowers 3.0-4.5 cm across; keels entire ...17. *C. mossiae*
  - 3b. Flowers less than 3 cm across; keels undulate:
    - 4a. Bracts persistent; keels 2, extending up to two-thirds of mid-lobe  
...4. *C. breviscapa*
    - 4b. Bracts deciduous, keels 5 on epichile only  
...30. *C. suaveolens*

Section 9. **Proliferae sens. str.** Lindl. Fol. Orch. Coelog. 10. 1854.

- 1b. Pseudobulbs cylindric, sometimes narrowly ovoid, three and a half times or more as long as broad:

- 2a. Flowers brownish yellow or brown; lateral lobes brown at apex; keels 2, converging towards apex; column broadly winged  
...15. *C. longipes*
- 2b. Flowers white or creamy; lateral lobes light yellow at apex; keels 3, the middle one short at base, laterals almost parallel; column narrowly winged  
...25. *C. raizadae*
- 1b. Pseudobulbs broadly or narrowly ovoid, one and a half to two and a half times as long as broad:
- 3a. Flowers greenish-yellow, 4-8 mm apart; keels 2, not very prominent, rather rounded  
...23. *C. prolifera*
- 3b. Flowers brown or yellowish, 10-15 mm apart; keels 2, prominent, lamellate  
...28. *C. schultesii*

1. *Coelogyne albo-lutea* Rolfe in Kew Bull. 1908 : 414. 1908.

Pseudobulbs *ca.* 8 cm long, ovoid-oblong. Leaves 15-18×4-5 cm, lanceolate-elliptic. Inflorescence proteranthous, 15-18 cm long, 5-7-flowered. Flowers showy, white, fragrant. Sepals 2.5-3.0×0.8 cm, slightly keeled. Petals similar. Labellum *ca.* 2 cm long, white, tinged with light yellow; mid-lobe ovate, acute, light yellow at base; lateral lobes oblong, obtuse, the greater part deep yellow; keels 3, strongly undulate, white except at the apex, extending into the yellow tinge on mid-lobe.

*Type* : Himalayas, Cult. R. B. G. Glasnevin, s. l. (K, Photo!).

*Fls.* : May.

*Distrib.* : INDIA: Mountains of northern India; endemic.

*Notes* : This is a good and distinct species. It has not been collected again after the type and only the type photograph could be studied; perhaps it is already extinct or awaits fresh collection.

2. *C. assamica* Linden & Reichb. f. in Berl. Allg. Gaertenz. 25 : 403. 1857; Seidenfaden in Dansk Bot. Ark. 29 (4) : 32. 1975. *C. fuscescens* Lindl. var. *assamica* (Linden & Reichb. f.) Pfitz. & Kranzl. in Engler, Pflanzenr. 32 : 43. 1907.

Flowers ochre-yellow. Sepals oblong-lanceolate, acute, midnerve of lateral sepals dorsally carinate. Petals linear, acute, subfalcate. Labellum oblong, constricted in the middle; lateral lobes acute; mid-lobe semiovate, hastate; keels linear, depressed, glossy, cinnamon coloured, low, parallel, the median shorter. Column clavate, arched; androcline subtrilobed.

*Type* : Assam, *Linden s. n.*

*Fls.* : Dec.

*Distrib.* : INDIA : Assam; BHUTAN, BURMA, YUNNAN, LAOS, VIETNAM  
(*fide* Seidenfaden l.c.)

*Notes* : The above description is based on the protologue only. Though the species was described on plants from Assam, no later collection of the species was available.

3. ***C. barbata*** Griff. Itin. Not. 72. 1848; Hook. f. Fl. Brit. Ind. 5 : 839. 1890.

Pseudobulbs 4.9×1.7-4.0 cm, ovoid. Leaves petioled, 11.5-30.5×2.8-6.3 cm. Inflorescence 23-49 cm long, 4-12-flowered. Flowers 3.5-7.5 cm across, white, sometimes fragrant. Sepals 2.8-4.5×1.1-1.8 cm. Petals 2.7-4.2×0.3-0.6 cm. Labellum 2.8-3.6×2.6-3.0 cm, brown inside, lighter on lateral lobes, white outside; mid-lobe ovate, acute, deeply fimbriate; lateral lobes obtuse, fimbriate above; keels 3, deeply fimbriate, dark-brown, the two laterals up to the apex of the mid-lobe, the middle one shorter. Column 2.0-2.5×0.5-1.0 cm, broadly winged, slightly 3-lobed at apex. Pollinia 2-3×1-2 mm.

*Type* : Khasia, Moosmai in Sylvis, (Khasi Hills, Mawsmmai Forest) Oct. 1835. Herb. *Griffith* 5104 (K, Photo!).

*Fls.* : Sept.-Dec.

*Distrib.* : INDIA : Arunachal Pradesh, Assam, Manipur, Meghalaya, Nagaland; BHUTAN, BURMA.

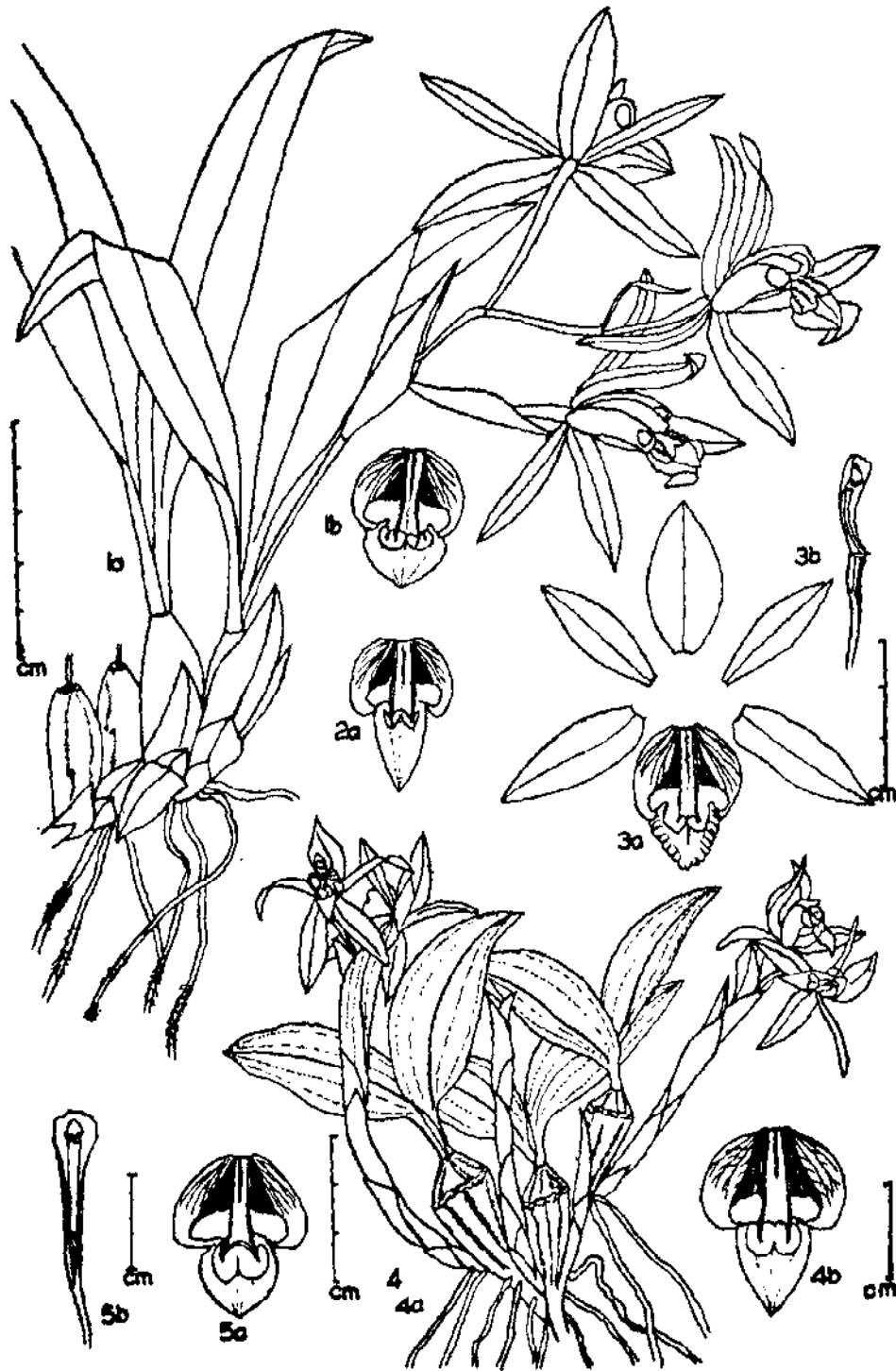
*Chr. No.* :  $n=20$  (Mehra & Vij in *Taxon* 19 : 107. 1970).

*Uses* : The large, white, fragrant flowers are ornamental; used as cut flowers.

4. ***C. breviscapa*** Lindl. Fol. Orch. Coelog. 4. 1854; Hook. f. Fl. Brit. Ind. 5 : 833. 1890; Fischer in Fl. Pres. Madr. 8 : 1429. 1928 (Repr. ed. 3 : 999. 1957).

**Fig. 18a**

Pseudobulbs 1.5-5.0×0.5-1.6 cm, narrowly ovoid-oblong. Leaves sessile or subsessile, 4.5-19.0 cm long, 3-9-flowered. Flowers 1.5-2.0 cm across, white, scented. Sepals 1.0-1.4×0.3-0.7 cm. Petals 0.9-1.2×0.2 cm, linear. Labellum 1.0-1.3×0.5-0.7 cm, white; mid-lobe cuneately oblong or orbicular, retuse; lateral lobes narrowly oblong, obtuse; keels 2, yellow, undulate, extending up to two-thirds of mid-lobe. Column 6-9×3 mm, broadly winged. Pollinia *ca.* 0.5 mm. Capsules 2.8-3.0×0.8 cm, ellipsoid.



Figs. 1-5 : 1a, b. *Coelogyne punctulata* Lindl. a. Habit. b. Labellum.  
 2a. *C. corymbosa* Lindl. Labellum  
 3a, b. *C. hitendrae* Das et Jain a. Perianth. b. Column.  
 4a, b. *C. occultata* Hook. f. a. Habit. b. Labellum.  
 5a, b. *C. nitida* (Wall. ex Don) Lindl. a. Labellum. b. Column.

*Type* : Ceylon, *Walker s. n.* (K, Photo!).

*Fls.* : Feb.-Mar.; *Frts.* : Mar. onwards.

*Distrib.* : INDIA : Karnataka, Tamil Nadu; SRI LANKA.

5. ***C. corymbosa*** Lindl. *Fol. Orch. Coelog.* 7. 1854; Hook. f. *Fl. Brit. Ind.* 5 : 831. 1890; King & Pantl. in *Ann. Roy. Bot. Gard. Cal.* 8 : 134.t. 185. 1898.

**Pl. I : 3, Fig. 2a.**

Pseudobulbs 2.0-4.5 × 1.3-3.0 cm, ellipsoid, or top-shaped, ridged. Leaves shortly petioled, 5.5-11.5 × 1.3-4.0 cm. Inflorescence proteranthous or synanthous, 9.5-18.0 cm long, 2-4 (1)-flowered. Flowers 4.0-6.5 cm across, white, fragrant. Dorsal sepal 3.2-4.0 × 0.9-1.6 cm, laterals 3-4 × 0.7-1.2 cm. Petals 3-4 × 0.5-1.0 cm. Labellum 2.7-3.3 × 2.0-3.3 cm, white, with orange-red-bordered yellow blotches; blotches on lateral lobes reddish-brown at base, and with 5-8 irregularly dichotomous streaks; mid-lobe ovate, acute, entire; lateral lobes rounded, serrulate at apex; keels 3, white, crenulate, terminating in blotches on mid-lobe. Column *ca.* 2 cm long, broadly winged, 0.7 cm broad at the 3-lobed apex. Pollinia 2 × 1 mm.

*Type* : Sikkim Himalaya, *Hooker* 126 (syntype K, Photo!); Khasi Hills, *Hooker s.n.* (syntype CAL!).

*Fls.* : Mar.-July; *Frts.* : June onwards.

*Distrib.* : INDIA : Sikkim, West Bengal, Arunachal Pradesh, Nagaland, Manipur, Meghalaya; NEPAL, BHUTAN, CHINA, BURMA.

*Chr. No.* : n=20 (Mehra & Vij in *Taxon* 19 : 107. 1970).

*Uses* : The dark-green foliage and profuse flowering make it very ornamental.

6. ***C. cristata*** Lindl. *Coll. Bot. sub. t.* 33 (Textus). 1821; Hook. f. *Fl. Brit. Ind.* 5 : 829. 1890; King & Pantl. in *Ann. Roy. Bot. Gard. Cal.* 8 : 133. t. 184. 1898.

**Figs. 14a, 14b, 14c**

Pseudobulbs 2.8-8.0 × 2.0-5.5 cm, ovoid-oblong. Leaves sub-sessile, 12-30 × 1.2-3.2 cm. Inflorescence proteranthous, 13-34 cm long, arched, 2-8-flowered. Flowers 6-9 cm across, white, fragrant. Sepals 3.5-5.3 × 0.7-1.7 cm, undulate. Petals 3.5 × 0.8-2.0 cm, undulate. Labellum 3.5-4.5 × 2.4-4.2 cm, white, tinged with yellow; mid-lobe rhomboid, acute, entire; lateral lobes broadly oblong, rounded; keels 5, pectinate or deeply fimbriate,

yellow, two extending up to the mid-lobe forming raised plates. Column 2.6-3.2×0.8-1.1 cm, broadly winged, white. Pollinia 3×1 mm, oblong. Capsules 6-8×1.3-2.0 cm, ellipsoid.

*Type* : Toka, Nepalia, Martio (Nepal, Toka, March), 1821, *Wallich s. n.*, Wall. Num. List No. 1958/1 (CAL!), 1958 (K, Photo!).

*Fls.* : Jan.-May; *Frts.* : May onwards.

*Distrib.* : INDIA : Uttar Pradesh, Sikkim, West Bengal, Arunachal Pradesh, Meghalaya; NEPAL, BHUTAN, TIBET.

*Chr. No.* : n=20 (Mehra & Vij in Taxon 19 : 107. 1870).

*Uses* : This species is largely employed in breeding work, for its beautiful flowers.

7. ***C. fimbriata*** Lindl. Bot. Reg. 11 : t. 868. 1825; Hook. f. Fl. Brit. Ind. 5 : 836. 1890.

**Figs. 7a, 7b, 7c**

Pseudobulbs 1.5-5.0×0.8-2.0 cm, oblong-subrotund, cylindrical or fusiform. Leaves subsessile, 3-12×0.7-3.0 cm. Inflorescence hysteranthous, 1-6-flowered. Flowers 2.0-4.5 cm across, yellow. Sepals 1.3-2.6×0.5-1.3 cm. Petals 1.3-2.5×0.05-0.2 cm. Labellum 1.3-2.5×0.9-2.0 cm, light-yellow, tinged with darkbrown on mid-lobe and at the base, streaked in lateral lobes and margin of mid-lobe, rarely without brown tinge or streaks, fimbriate; keels 2, continuous, darkbrown on epichile, colourless on hypochile with another small middle keel at base, often with small additional keels on mid-lobe. Column 1.0-1.3×0.3-0.4 cm, light-yellow. Pollinia 0.5-1.0×0.5-1.0 mm. Capsules 2.0-3.0×0.8-1.3 cm, ellipsoid.

*Type* : China, *J. D. Parks s. n.*, Bot. Reg. II : t. 868!

*Fls.* : Aug.-Nov.; *Frts.* : Nov. onwards.

*Distrib.* : INDIA : Sikkim, Arunachal Pradesh, Assam, Nagaland, Manipur, Tripura; NEPAL, BHUTAN, CHINA, BURMA, THAILAND, LAOS, CAMBODIA, VIETNAM, MALAYSIA.

*Chr. No.* : n=20 (Mehra & Sehgal in Taxon 25 : 646. 1976).

*Uses* : Profuse flowering of this species makes it very ornamental.

8. ***C. flaccida*** Lindl. Gen. & Sp. Orch. 39. 1830; Hook. f. Fl. Brit. Ind. 5 : 829. 1890; King & Pantl. in Ann. Roy. Bot. Gard. Cal. 8 : 133. t. 183. 1898.

**Pl. II : 6, Figs. 17a, 17b**

Pseudobulbs 3.5-12.0×1.3-3.6 cm, ridged, clustered. Leaves long-petioled, 3.8-19.0×1.0-3.5 cm. Inflorescence 6-26 cm long, 5-12-flowered. Flowers 1.5-4.5 cm across, creamy-white, fragrant. Sepals 1.5-2.6×0.5-1.0 cm. Petals 1.5-2.3×0.2-0.4 cm. Labellum 1.5-2.2×1.0-1.8 cm, serrulate at sinus; mid-lobe ovate, acute, golden-yellow at base; lateral lobes golden-yellow at apex with 6-8 dichotomous, reddish-brown streaks; keels 3, sometimes with 2-4 additional small keels, up to base of the mid-lobe, flexuous, white, distal ends reddish-brown. Column 1.0-1.7 cm long, broadly winged, brownish inside. Pollinia 1.0-1.5×1 mm. Capsules 4-5×1.3-1.6 cm, 3-ridged, triangular in cross section.

*Type* : Toka, Napalia, legi (Nepal, Toka), Apr. 1821, *Wallich s. n.*, Wall. Num. List No. 1961 (CAL!, K, Photo!).

*Fls.* : Mar.-Apr.

*Distrib.* : INDIA : Uttar Pradesh, Sikkim, Arunachal Pradesh, Nagaland, Manipur, Meghalaya, Mizoram; NEPAL, BURMA, THAILAND, LAOS.

*Chr. No.* : n=20 (Mehra & Vij in Taxon 19 : 107. 1970).

*Uses* : Of ornamental value.

9. *C. fuliginosa* W. J. Hooker in Bot. Mag. 75 : t. 4440. 1849; Hook. f. Fl. Brit. Ind. 5 : 836. 1890.

**Fig. 9a**

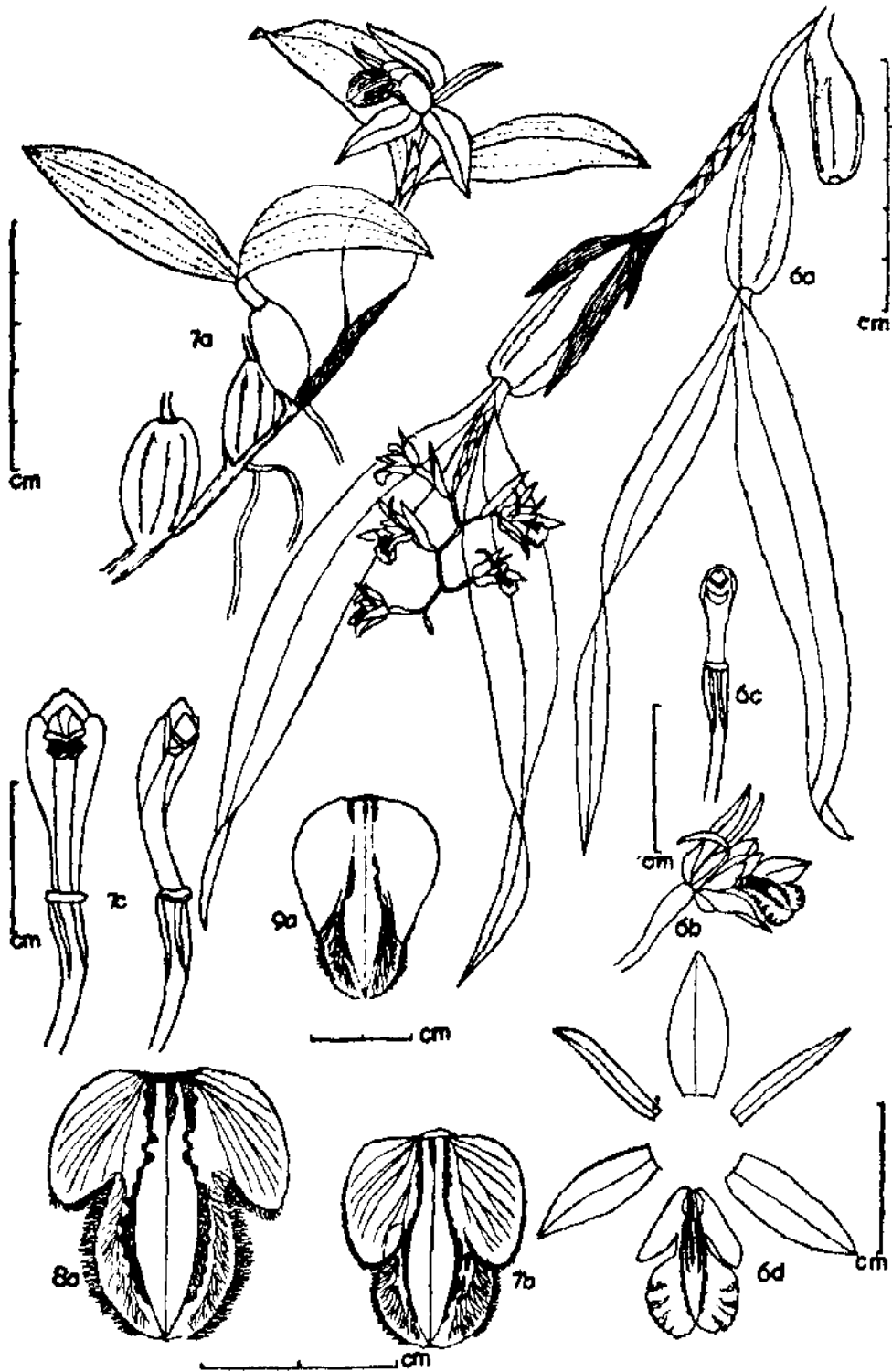
Pseudobulbs 1.5-8.5×0.8-2.5 cm, cylindrical or fusiform. Leaves 2, sometimes 1 or 3, subsessile, 5-18×1.0-3.2 cm. Inflorescence hysteranthous, erect, 5-13 cm long, 1-4-flowered. Flowers 5.5-7.0 cm across, brownish yellow. Sepals 3.6-4.5×1.0-1.7 cm. Petals 3.4-4.3×0.2 cm. Labellum 3.5-4.2×2.6-3.0 cm, tinged with dark chocolate-brown on mid-lobe; mid-lobe oblong, fimbriate; lateral lobes minutely fimbriate at apex; keels 2, interrupted, sometimes partly missing, slightly above the base, dark-coloured on epichile, colourless on hypochile, with another small middle keel at base. Column 2.5-2.8 cm long, yellowish, winged. Pollinia 3.0×1.5 mm. Capsules 4×1.4-1.6 cm.

*Type* : India, *Loddig's collector*, 1838 (K).

*Fls.* : Sept.-Dec.; *Frts.* : Dec. onwards.

*Distrib.* : INDIA : Arunachal Pradesh, Meghalaya; BURMA.

*Uses* : Of ornamental value.



Figs. 6-9 : 6a-d. *Coelogyne micrantha* Lindl. a. Habit. b. Flower. c. Column. d. Perianth.  
 7a-c. *C. fimbriata* Lindl. a. Habit. b. Labellum. c. Column.  
 8a. *C. ovalis* Lindl. Labellum.  
 9a. *C. fuliginosa* W. J. Hook. Labellum.

10. *C. fuscescens* Lindl. Gen. & Sp. Orch. 41. 1830; Hook. f. Fl. Brit. Ind. 5 : 833. 1890; King & Pantl. in Ann. Roy. Bot. Gard. Cal. 8 : 132. t. 181. 1898.

Pseudobulbs 4.5-13.5×1-2 cm, cylindric or fusiform. Leaves short-petioled, 9.0-23.5×2.4-8.0 cm, plicate. Inflorescence proteranthous, rarely synanthous, 8-23 cm long, 3-8- or rarely 1-2-flowered. Flowers 2.0-3.5 cm across, yellowish. Dorsal sepals 3.0-4.5×1.3-2.0 cm, laterals 3.0-4.3×0.7-1.2 cm. Petals 3.0-4.2×0.2-0.3 cm. Labellum 2.6-3.8×1.4-1.8 cm, with dark reddish-brown spots and a marginal band on the lateral lobes; mid-lobe broadly ovate or rounded, light brown tinged at base; lateral lobes narrow, acute; keels 3, smooth, rounded, reddish-brown, confined to hypochile or thinning at epichile. Column 2.3-2.7×0.4-0.6 cm, broadly winged. Pollinia 2×1 mm. Capsules *ca.* 6.5 cm long.

- 1a. Tips of lateral lobes of labellum less than 5 mm long; mid-lobe acute or subacute ...var. **fuscescens**  
 1b. Tips of lateral lobes of labellum more than 5 mm long; mid-lobe truncate or rounded ...var. **brunnea**

var. **fuscescens**

*Type* : Napalia, Toka, Martio (Nepal, Toka, March), 1821, *Wallich s. n.*, Wall. Num. List No. 1962A (CAL!), 1962 (K, Photo!).

*Distrib.* : INDIA : Sikkim, West Bengal, Arunachal Pradesh, Meghalaya, Mizoram; NEPAL, BHUTAN, BURMA.

*Chr. No.* : n=20 (Mehra & Vij in Taxon 19 : 107. 1970).

var. **brunnea** (Lindl.) Lindl. Fol. Orch. Coelog. 11. 1854. *C. brunnea* Lindl. in Gard. Chron. 71. 1848.

*Type* : East Indies, Syon, 1844. Cult. London nurseries.

*Fls.* : Nov.-Dec.

*Distrib.* : INDIA : Arunachal Pradesh, Meghalaya; NEPAL, BHUTAN, BURMA, THAILAND, LAOS, VIETNAM.

var. *brunnea* differs from var. *fuscescens* chiefly in its well-defined lateral lobes and rounded mid-lobe.

11. *C. glandulosa* Lindl. Fol. Orch. Coelog. 6. 1854; Hook. f. Fl. Brit. Ind. 5 : 835. 1890. *C. nervosa* Wight Ic. 5(1): 5. t. 1638. 1851, *non* A. Rich. in Ann. Sc. Nat. Ser. 2.15: 16. 1841.

Pseudobulbs 3-8×1.2-3.0 cm, ovoid, ridged. Leaves short-petioled, 9-20×2.3-4.6 cm. Inflorescence synanthous, 13-23 cm long, 2-8-flowered. Flowers 4-5 cm across, white, fragrant. Sepals 2.2-3.0×0.9-1.3 cm. Petals 2.2-2.8×1.0-1.4 cm, elliptic. Labellum 1.8-2.2×1.0-1.3 cm, white, tinged with yellow or orange in the middle; mid-lobe elliptic, acute; lateral lobes oblong, obtuse; keels 3 (2-4), extending up to the base of mid-lobe, with or without glands. Column 1.4-1.6×0.3-0.4 cm, broadly winged. Pollinia 1-2×1 mm, ellipsoid.

1a. Keels 3 or 4, glandular:

2a. Keels 3, median short ...var. **glandulosa**

2b. Keels 4, laterals short ...var. **bournei**

1b. Keels 2, almost entire, eglandular ...var. **sathyanarayanae**

var. **glandulosa**

*Type* : Nilgiri Hills, Pycarah, *Wight s.n.* (K, Photo!).

*Fls.* : May-June; *Frts.* : June onwards.

*Distrib.* : INDIA : Tamil Nadu; endemic.

var. **bournei** Das et Jain in Bull. Bot. Surv. Ind. 18 : 241. 1976 (1979). *C. glandulosa* Fyson, Fl. Nilgiri Pulney Hill tops 1:388. 1915, *pro parte*.

*Type* : Pulney Hills, Poombarai, 25.5.1899, *Bourne* 2941 (holotype CAL!, isotype Madr. Pres. College!).

*Fls.* : May.

*Distrib.* : INDIA : Tamil Nadu; endemic.

var. **sathyanarayanae** Das et Jain in Bull. Bot. Surv. Ind. 18 : 241. 1976 (1979). *C. mossiae* Rolfe in Kew Bull. 156, 1894, *pro parte*; Rolfe in Gard. Chron. 1 : 408. t. 49. 1894; Fyson, Fl. Nilgiri Pulney Hill tops 1 : 388. 1915, *pro parte*.

*Type* : Tamil Nadu, Kodaikanal, 10.3.1960, *Saldanha* 5211 (holotype CAL!, isotypes BLATT!).

*Fls.* : March.

*Distrib.* : INDIA : Tamil Nadu; endemic.

12. **C. griffithii** Hook. f. Fl. Brit. Ind. 5 : 838. 1890 & Ic. Pl. t. 2108. 1894.

Pseudobulbs 5.0-9.5 × 1.4-3.0 cm, oblong, ridged. Leaves petioled, 11.5-26.0 × 3-6 cm. Inflorescence hysteroanthous, 15-34 cm long, 6-18-flowered. Flowers 1.5-2.0 cm across, light brownish. Sepals 1.0-1.3 × 0.3-0.6 cm. Petals 1.0-1.3 × 0.1 cm. Labellum 0.9-1.1 × 0.8-0.9 cm, whitish with a broad brown patch on margin of lateral lobes; mid-lobe oblong, truncate, short; lateral lobes rounded, minutely serrulate; keels 5, on the middle of the disc, the lateral two longer, the inner three small, entire. Column *ca.* 1 × 0.2-0.3 cm, narrowly winged. Pollinia *ca.* 0.5 mm. Capsules 2.2-3.5 × 0.9-1.4 cm, ellipsoid.

*Type* : Manipur, Khongui valley, 4-5000 ft (1200-1500 m), 27th April, 1882, *Watt* 6780. (syntypes CAL!, K, Photo!); Patkoye Hills, Herb. *Griffith* 5091 (syntype K, Photo!).

*Fls.* : April-Aug.

*Distrib.* : INDIA : Arunachal Pradesh, Manipur, Nagaland; endemic.

13. *C. hitendrae* Das & Jain in *Orch. Rev.* 86: 195. 1978.

**Figs. 3a, 3b**

Pseudobulbs 2.5-3.5 × 1.2-1.6 cm, oblong-ellipsoid, ridged. Leaves short-petioled. 8.0-10.0 × 1.5-2.5 cm. Inflorescence proteranthous, *ca.* 12 cm long, 1-2-flowered. Flowers 5-6 cm across, white, fragrant. Dorsal sepal 3.0-3.2 × 1.5 cm; laterals 3.2-3.3 × 1.2-1.3 cm. Petals 3.0 × 0.9 cm, oblong-elliptic. Labellum 3.0-3.1 × 2.0-2.1 cm, white, both laterals and mid-lobe blotched on the throat with a continuous golden-yellow band bordered with reddish-brown, streaked with reddish-brown; mid-lobe broadly ovate, undulate, crenulate; lateral lobes rounded at apex; keels 3, crenulate, wavy, white, the laterals stopping on the distal margin of the blotch, the middle one passing over beyond the blotch. Column 2.0 × 0.6 cm, serrulate at apex. Pollinia 1.5 mm long.

*Type* : Nagaland, Pulebadje, *Kataki* 60202 (Holotype CAL!, Isotype ASSAM!).

*Fls.* : April-May.

*Distrib.* : INDIA : Nagaland; endemic.

14. *C. holochila* Hunt & Summerhayes in *Kew Bull.* 20 : 52. 1966. *C. elata* W. J. Hooker in *Bot. Mag.* 83. t. 5001. 1857; Parry, *The Lakhers* 606. 1932, *non* Lindl. *Gen. & Sp. Orch.* 40. 1830.

Pseudobulbs 6-12 × 2-4 cm, oblong cylindrical. Leaves petioled, 22-45 × 3-8 cm. Inflorescence hysteroanthous, 20-40 cm long, 6-10-flowered. Flowers

3.5-5.0 cm across, white or creamy-white. Sepals 2.5-3.0 × 0.7-1.2 cm. Petals 2.4-2.7 × 0.4-0.6 cm. Labellum 2.2-2.8 × 2.0-2.5 cm, obscurely 3-lobed, tinged with orange or yellow; keels 3, the middle one short, the laterals extending up to two-thirds of the labellum, high and strongly wavy at base. Column *ca.* 1.7 cm, narrowly winged. Pollinia 2 × 1 mm.

*Type* : Burma, Chin Hills, Mt. Victoria, *Wheeler Cuffe*, Cult. R. B. G. Glasnevin, Dublin, 16 June 1914 (K, Photo!).

*Fls.* : April-May.

*Distrib.* : INDIA : Mizoram; BURMA.

15. *C. longipes* Lindl. Fol. Orch. Coelog. 10. 1854; Hook. f. Fl. Brit. Ind. 5 : 839. 1890, *non* King & Pantl. in Ann. Roy. Bot. Gard. Cal. 8 : 136. t. 189. 1898.

**Figs. 10a, 10b, 10c**

Pseudobulbs 2-10 × 0.6-1.2 cm, cylindric or narrowly ovoid. Leaves 2, rarely 3, petioled, 3.5-20.0 × 1.7-3.5 cm. Inflorescence hysteranthous, first year's growth 7-24 cm long, elongating up to 65 cm after proliferating 10 to 12 times, 3-6-flowered. Flowers 1.0-1.5 cm across, yellowish-brown or brown. Sepals 0.8-1.2 × 0.3-0.6 cm. Petals 0.8-1.0 × 0.05-0.1 cm. Labellum 0.9-1.2 × 0.9-1.2 cm, light-brownish-yellow with brown tinge on mid-lobe, margin of lateral lobes and at base of hypochile, sometimes pale; mid-lobe broadly obcordate, retuse; lateral lobes obovate, rounded; keels 2, prominent on epichile only. Column 7-8 × 4-5 mm, broadly winged. Pollinia *ca.* 0.5 mm.

*Type* : Khasi Hills, 4-5000 ft. (1200-1500 m), *J. D. Hooker & T. Thomson s.n.* (syntypes CAL!, K, Photo!, C).

*Fls.* : April-July.

*Distrib.* : INDIA : Sikkim, Arunachal Pradesh, Meghalaya, Nagaland; BHUTAN, BURMA, THAILAND, LAOS.

*Chr. No.* : n=20 (Mehra & Vij in Taxon 19 : 107. 1970).

16. *C. micrantha* Lindl. in Gard. Chron. 173. 1855; Hook. f. Fl. Brit. Ind. 5 : 836. 1890 & 6 : 194. 1890.

**Figs. 6a, 6b, 6c, 6d**

Pseudobulbs 1.5-6.0 × 0.6-1.8 cm, oblong to obovoid. Leaves subsessile, 6.5-20.0 × 1-2 cm. Inflorescence hysteranthous, 4.0-8.5 cm long, 3-9-flowered. Flowers 1.3-2.0 cm across, creamy or light-brownish. Sepals



Figs. 10-13 : 10a-c. *Coelogyne longipes* Lindl. a. Habit. b. Flower. c. Labellum.  
 11a-c. *C. raizadae* Jain et Das. a. Inflorescence. b. Flower. c. Labellum.  
 12a-d. *C. prolifera* Lindl. a. Inflorescence. b. Flower. c. Labellum with a column. d. Labellum.  
 13a-d. *C. schultesii* Jain et Das a. Inflorescence. b. Labellum. c. Operculum. d. Pollinia

0.9-1.0×0.3-0.5 cm. Petals 0.8-0.9×0.1 cm, filiform. Labellum 0.9-1.0×0.7-0.9 cm, deeply 3-lobed, yellowish-brown, deep brown on outer side of lateral lobes; mid-lobe broadly oblong, cuneate at base, undulate; lateral lobes narrowly oblong; keels 5, fimbriate or tuberculate, the inner 3 shorter, the two laterals longer and plate-like at base. Column 6-7×2 mm, slightly winged. Pollinia *ca.* 0.5 mm. Capsules 1.6-2.5×0.7-0.8 cm, ellipsoid.

*Type* : East Indies, Dale Park, 11th March 1855, *A. Dick s. n.* (K, Photo!).

*Fls.* : Jan.-Mar.

*Distrib.* : INDIA : Arunachal Pradesh, Nagaland, Mizoram, Meghalaya; BURMA.

17. *C. mossiae* Rolfe *emend.* Das et Jain in Orch. Rev. 86 : 195-199. 1978; Rolfe in Kew Bull. 1894: 156. 1894, *pro parte*; Fyson, Fl. Nilgiri Pulney Hill tops 1 : 388. 1915, *pro parte*; Fischer in Fl. Pres. Madr. 8 : 1429. 1928 (Repr. ed. 3 : 999. 1957).

Pseudobulbs 4.0-7.5×1.7-2.0 cm, ovoid. Leaves 30-34×2.6-3.4 cm, linear-oblong. Inflorescence proteranthous, *ca.* 24 cm long, 6-7-flowered. Flowers 4.0-4.5 cm across, white, fragrant. Sepals 2.0-2.5×0.8-1.0 cm, dorsally keeled. Petals 2.0-2.5×0.9-1.1 cm, elliptic. Labellum 1.8-2.0×1.2-1.4 cm, white, tinged with yellow on the mid-lobe; mid-lobe broadly elliptic, acute, entire; lateral lobes oblong, obtuse, entire; keels 2, extending up to half of the mid-lobe, entire. Column *ca.* 1.6 cm long, 0.5 cm broad at apex. Pollinia 1.0×0.5 mm.

*Type* : Nilgiri Hills, *John S. Moss s.n.* (K, Photo!).

*Fls.* : Feb.

*Distrib.* : INDIA : Kerala, Tamil Nadu; endemic.

18. *C. nervosa* A. Rich. in Ann. Sc. Nat. Ser. 2. 15 : 16. 1841. *C. corrugata* Wight, Ic. 5(1): 5. t. 1639. 1851; Hook. f. Fl. Brit. Ind. 5 : 835. 1890; Fyson, Fl. Nilgiri Pulney Hill tops 1 : 390. 1915; Fisher in Fl. Pres. Madr. 8 : 1430. 1928 (Repr. ed. 3 : 999. 1957).

Pseudobulbs 2.5-6.0×1.3-2.8 cm, ovoid, rugose. Leaves petioled, 9-30×1.8-4.0 cm. Inflorescence synanthous, 13-25 cm long, 3-4-flowered. Flowers 2.8-4.0 cm across, white, fragrant. Sepals 2.6-3.4×0.6-1.1 cm. Petals 2.6-3.4×0.7-1.0 cm, elliptic. Labellum 1.6-2.8×1.1-2.4 cm, white; mid-lobe ovate, acute, tinged with yellow; lateral lobes oblong, obtuse,

streaked with reddish-brown; keels 3, white, crenulate, up to the base of midlobe. Column 1.4-1.8×0.4-0.6 cm, broadly winged, 3-lobed at apex, the apical lobe serrulate. Pollinia 2×1 mm. Capsules 2.5-1.2 cm long, ellipsoid.

*Type* : Nilgiri Hills, Neddoubetta, *Perrottet s.n.* (P).

*Fls.* : July-Aug.; *Frts.* : Aug. onwards.

*Distrib.* : INDIA : Karnataka, Kerala, Tamil Nadu; endemic.

19. *C. nitida* (Wall. ex Don) Lindl. Gen. & Sp. Orch. 40. 1830 (Excl. syn. *Cymbidium nitidum* Roxb.). *Cymbidium nitidum* Wall. (Lindl. Coll. bot. sub. t. 33. 1821 *nom. nud.*) ex Don, Prodr. Fl. Nep. 35. 1825, *non C. nitidum* Roxb. Fl. Ind. 612, 1832. *Coelogyne ochracea* Lindl. Bot. Reg. t. 69. 1846; Hook. f. Fl. Brit. Ind. 5 : 831. 1890; King & Pantl. in Ann. Roy. Bot. Gard. Cal. 8 : 132. t. 182. 1898.

Pl. I : 2, Figs. 5a, 5b

Pseudobulbs 2.4-6.0×0.8-3.5 cm, oblong, subquadrangular. Leaves petioled, 7.0-21.5×1.5-3.5 cm. Inflorescence proteranthous or synanthous, 11-24 cm long, 4-8-flowered. Flowers 2.5-5.3 cm across, white, fragrant. Sepals 1.8-2.6×0.5-1.2 cm. Petals 1.8-2.5×0.3-0.7 cm. Labellum 1.6-2.1×1.1-1.6 cm, white, with orange-red bordered yellow blotches; mid-lobe broadly ovate, recurved; lateral lobes serrulate at the apex, orange-red tinged below the yellow blotches and streaked with brownish-orange; keels 3, the middle one very short at base, sometimes with 2 additional small keels on the midlobe, entire. Column 0.7-1.5×0.4-0.5 cm, broadly winged. Pollinia 1.0-1.5×0.5-1.0 mm.

*Type* : Nepal, *Wallich s.n.*, Wall. Num. List No. 1954 (CAL.! K, Photo!) *pro parte*.

*Fls.* : Mar.-June.

*Distrib.* : INDIA : Uttar Pradesh, Sikkim, West Bengal, Arunachal Pradesh; NEPAL, BHUTAN, BANGLADESH, BURMA, THAILAND, LAOS.

*Chr. No.* : n=20 (Mehra & Vij in Taxon 19 : 107. 1970).

*Uses* : Profusely flowering, ornamental.

*Notes* : The view of Hunt & Summerhayes (Kew Bull. 66 : 53. 1966) and Scidenfaden [Dansk Bot. Ark. 29 (4) : 53. 1975] that Lindley's combination was based on *Cymbidium nitidum* Wall. ex Don. is accepted here. The material usually labelled *Coelogyne nitida* in herbaria is true

*C. punctulata* Lindl. (sp. No. 24). However, *Cymbidium nitidum* Roxb. is synonymous to *Coelogyne punctulata*.

20. *C. occultata* Hook. f. Fl. Brit. Ind. 5 : 832. 1890; King & Pantl. in Ann. Roy. Bot. Gard. Cal. 8 : 135. t. 186. 1898.

**Pl. I : 1, Figs. 4a, 4b**

Pseudobulbs 1.8-4.0×0.7-1.4 cm, top-shaped. Leaves short petioled, 2.5-8.0×0.9-2.2 cm. Inflorescence 5-12 cm long, 1-2-flowered. Flowers 3-4 cm across, white, mildly scented. Sepals 1.7-2.4×0.5-0.9 cm. Petals 1.6-2.0×0.4-0.6 cm. Labellum 1.3-2.0×0.8-1.4 cm, with orange-red bordered yellow blotches, those on lateral lobes dark reddish-brown at the base, streaked with reddish-brown; mid-lobe ovate, acute; lateral lobes broadly oblong, rounded; keels 3, entire, white, the middle one very short. Column 1.0-1.4 cm long, winged and 0.3-0.5 cm at apex, streaked with yellowish brown. Pollinia 1.0-0.5 mm. Capsules ellipsoid.

*Type* : Sikkim Himalaya, Herb. Griffith 5159 (K, Photo!).

*Fls.* : May-June.

*Distrib.* : INDIA : Sikkim, West Bengal, Arunachal Pradesh, Meghalaya, Nagaland; BHUTAN.

*Chr. No.* :  $n=20$  (Mehra & Vij in Taxon 19 : 107. 1970).

21. *C. odoratissima* Lindl. Gen & Sp. Orch. 41. 1830; Wight, Ic. 5(1): 5. t. 1640. 1851; Hook. f. Fl. Brit. Ind. 5 : 834. 1890. Fischer in Fl. Pres. Madr. 8 : 1429. 1928 (Repr. ed. 3 : 999. 1957). *C. angustifolia* Wight l.c. t. 1641. 1851 non A. Rich in Ann. Sc. Nat. Ser. 2.15:16. 1841.

Pseudobulbs 1-3×0.5-1.2 cm, narrowly ovoid. Leaves petioled, 3.5-9.0×0.5-1.5 cm. Inflorescence proteranthous or synanthous, 6-10 cm long, 2-4-flowered. Flowers 2.0-2.6 cm across, white, fragrant. Sepals 1.4-1.8×0.4-0.6 cm. Petals 1.4-1.6×0.3-0.4 cm. Labellum 1.4-1.7×0.6-1.0 cm, white, tinged with yellow in the middle; mid-lobe orbicular or ovate, recurved, undulate; lateral lobes narrowly oblong; keels 2 or 3, yellow, undulate, extending up to middle of mid-lobe, middle one slightly shorter. Column 0.8-1.0×0.3 cm, winged. Pollinia 0.5 mm.

- 1a. Keels 3 ...var. **odoratissima**  
1b. Keels 2 ...var. **angustifolia**



Pl. I : 1. *Coelogyne occultata* Hook. f.  
2. *C. nitida* (Wall. ex Don) Lindl.  
3. *C. corymbosa* Lindl.



Pl. II: 4. *Coelogyne punctulata* Lindl.  
5. *C. rigida* Par. & Reichb. f.  
6. *C. flaccida* Lindl.

var. *odoratissima*

*Type* : Ceylon, Nuera Ellia, 1829. *Macrae s. n.*, Wall. Num. List No. 1960. (K, Photo!), Herb. *Heyne s. n.*, Wall. Num. List No. 1960 (CAL!).

*Fls.* : Jan.-May.; *Frts.* : May onwards.

*Distrib.* : INDIA : Karnataka, Tamil Nadu; SRI LANKA.

var. *angustifolia* (Rich.) Lindl. Fol. Orch. Coelog. 5. 1854. *C. angustifolia* A. Rich. in Ann. Sc. Nat. Ser. 2. 15 : 16. 1841.

*Type* : Nilgiri Hills, Neddoubetta, *Perrottet s. n.* (P).

*Fls.* : July.

*Distrib.* : INDIA: Tamil Nadu.

var. *angustifolia* differs from var. *odoratissima* in its acuminate mid-lobe of labellum, 2 keels and flowering period being July.

22. *C. ovalis* Lindl. Bot. Reg. 24 : 91. Misc. 191. 1838; Hook. f. Fl. Brit. Ind. 5 : 836. 1890; Hook. f. in Ann. Roy. Bot. Gard. Cal. 5 : 28. t. 41. 1895; King & Pantl. in Ann. Roy. Bot. Gard. Cal. 8 : 135. t. 187. 1898.

**Fig. 8a**

Pseudobulbs 3-10×0.8-2.0 cm, narrowly ovoid to fusiform. Leaves subsessile, 5-18×1.5-5.5 cm. Inflorescence hysteranthous, erect, 1-5-flowered. Flowers 3.5-5.5 cm across, yellow or lemon-yellow. Sepals 2.7-3.6×0.7-1.2 cm. Petals 2.5-3.3×0.1-0.2 cm. Labellum 2.3-3.1×1.5-2.4 cm, light yellow, tinged with blackish-brown on mid-lobe and at base, streaked on lateral lobes, sometimes without brown tinge or streaks; mid-lobe ovate to rotund, fimbriate; lateral lobes oblong, obtuse, slightly fimbriate; keels 2, continuous, dark brown on epichile, colourless on hypochile, with another small middle keel at the base. Column 1.5-2.0×0.5-0.8 cm, light yellow. Pollinia 2×1 mm. Capsules 3.0-4.5×1.2-1.6 cm, 6-ridged.

*Type* : Nepal and Kumaon, *Wallich s. n.*, Wall. Num. List No. 1957 *pro parte* (K, Photo!).

*Fls.* : Aug. -Dec.; *Frts.* Dec. onwards.

*Distrib.* : INDIA : Uttar Pradesh, Sikkim, Arunachal Pradesh, Assam, Meghalaya, Nagaland; NEPAL, TIBET, BURMA, THAILAND.

*Chr. No.* : n=20 (Mehra & Vij in Taxon 19 : 107. 1970).

23. *C. prolifera* Lindl. Gen. & Sp. Orch. 40. 1830; Lindl. Fol. Orch. Coelog.

10. 1854 *pro parte* (excl. Hooker's collection from Khasi Hills). *C. flavida* Wall. ex Lindl. Fol. Orch. Coelog. 10. 1854; Hook. f. Fl. Brit. Ind. 5 : 839. 1890; King & Pantl. in Ann. Roy. Bot. Gard. Cal. 8 : 138. t. 191. 1898.

**Figs. 12a, 12b, 12c, 12d**

Pseudobulbs 3.5-7.0 × 1.5-3.0 cm, narrowly ovoid to ovoid. Leaves petioled, 9.0-16.5 × 1.5-2.8 cm. Inflorescence hysteranthous, first year's growth 6-22 cm long, elongating up to ca. 45 cm after proliferating five to six times, 5-11-flowered. Flowers 1.0-1.3 cm across, light greenish-yellow. Sepals 0.6-0.8 × 0.3-0.4 cm. Petals 0.6-0.8 × 0.05 cm. Labellum 0.6-0.8 × 0.5-0.6 cm; mid-lobe sharply recurved at the junction with lateral lobes, undulate; lateral lobes oblong, obtuse, clasping the column; keels 2, faint on hypochile, slightly raised on epichile. Column 4-6 × 1.2 mm, straight, not winged. Pollinia 0.5 mm long.

*Type* : Nepal (Nepal) 1821, *Wallich s. n.*, Wall. Num. List No. 1956 (CAL!, K, Photo!).

*Fls.* : May-June.

*Distrib.* : INDIA : Sikkim, Arunachal Pradesh, Assam, Meghalaya, Mizoram, Nagaland; NEPAL, BHUTAN, BURMA.

*Chr. No.* :  $n=20$ , under the name *C. flavida* (Mehra & Vij in Taxon 19 : 107. 1976).

*Notes* : A critical study showed that most specimens going under the name *C. prolifera* Lindl. actually represent another species: *C. schultesii* [Jain et Das in Proc. Ind. Acad. Sci. 87B (5) : 119. 1978]. The confusion was due to Lindley's (Fol. Orch. Coelog. 1854) treatment of a mixture of specimens from Khasi Hills and Sikkim Himalayas. The Khasi Hills specimen does not represent true *C. prolifera*. Another species (*C. flavida*) described for the first time in the same work is identical with true *C. prolifera* and therefore conspecific.

**24.** *C. punctulata* Lindl. Coll. Bot. sub. t. 33 (textus). 1821. *C. ocellata* Lindl. Gen. & Sp. Orch. 40. 1830. *C. goweri* Reichb. f. in Gard. Chron. 443. 1869. *C. nitida* (Roxb.) Hook. f. Fl. Brit. Ind. 5 : 837. 1890; *Cymbidium nitidum* Roxb. Fl. Ind. 3 : 612. 1832, *non* Wall. ex Don.

**Pl. II : 4, Figs. 1a, 1b**

Pseudobulbs 3.0-7.5 × 1.0-3.5 cm, ovoid, glossy. Leaves petioled, 10-21 × 1.4-5.0 cm. Inflorescence hysteranthous, 7.5-20.0 cm long, 2-6 flowered. Flowers 3-6 cm across, white, rarely fragrant. Sepals 2.3-4.0 ×

0.5-2.0 cm. Petals 2.0-3.8 × 0.5-0.8 cm, linear-lanceolate. Labellum 2.2-3.0 × 2.0-2.7 cm, 3-lobed, white with orange-red bordered golden yellow blotches, streaked with reddish-brown on lateral lobes; mid-lobe broadly or narrowly ovate, undulate; lateral lobes oblong-ovate, rounded; keels 3, extending up to the yellow blotch on mid-lobe, white, crenulate, sometimes with 2-4 small additional keels on the mid-lobe. Column 1.5-2.0 × 0.5-0.7 cm, broadly winged, subentire. Pollinia 2 × 1 mm. Capsules 3.0-5.5 × 1.5-2.5 cm, ellipsoid or obovoid.

1a. Leaves more than 10(10-21) cm long, petiolate, narrowly oblong-lanceolate or elliptic; labellum glabrous inside ...forma **punctulata**

1b. Leaves less than 10(5-8) cm long, subsessile, elliptic; labellum pubescent inside ...forma **brevifolia**

#### forma **punctulata**

*Type* : Nepal, *Wallich s. n.* (K).

*Fls.* : Feb.-June and Sept.-Nov.

*Distrib.* : INDIA : Sikkim, West Bengal, Arunachal Pradesh, Manipur, Mizoram; NEPAL, BHUTAN, BURMA.

forma **brevifolia** (Lindl.) Das et Jain *stat. et comb. nov.* *C. brevifolia* Lindl. *Fol. Orch. Coelog.* 7. 1854; Pfitz. & Kranzl. in *Engler Pflanzenr.* 32 : 60. 1907.

*Type* : Khasi Hills, *J. D. Hooker & T. Thomson s. n.* (syntypes CAL 454607!, K, Photo!).

*Distrib.* : INDIA : Meghalaya.

25. *C. raizadae* Jain et Das in *Proc. Ind. Acad. Sci.* 87B (5) : 119. 1978. *C. longipes* auct. *non* Lindl. *Fol. Orch. Coelog.* 10. 1854; King & Pantl. in *Ann. Roy. Bot. Gard. Cal.* 8 : 136. t. 189. 1898.

#### Figs. 11a, 11b, 11c

Pseudobulbs 3.0-9.5 × 0.6-1.2 cm, cylindrical. Leaves petioled, 6-11 × 1.6-2.5 cm. Inflorescence hysteranthous, first year's growth 6.5-20.6 cm long, elongating after each year's proliferation, 2-6-flowered. Flowers 1-2 cm across, white or creamy. *Sepals* 1.2-1.5 × 0.3-0.5 cm. *Petals* 1.0-1.4 × 0.05 cm. *Labellum* 1.1-1.5 × 0.6-0.7 cm; mid-lobe oblong or obovate, undulate; lateral lobes narrowly oblong, straight on sides, yellow or light brown tinged at the apex; keels 3, the middle one short, the laterals low, white, straight on hypochile, high, yellow and lamellate on epichile. *Column* 0.9-1.3 × 0.2-0.3 cm, narrowly winged. *Pollinia* 0.5-1.0 × 0.5 mm.

*Type* : Khasi Hills, Mawsmat, Das 55419 (holotype CAL!, isotype ASSAM!).

*Fls.* : Mar.-June.

*Distrib.* : INDIA : Sikkim, Arunachal Pradesh, Meghalaya, Nagaland; BHUTAN.

26. *C. rigida* Par. & Reichb. f. in Trans. Linn. Soc. 30 : 146. 1874; Hook. f. Fl. Brit. Ind. 5 : 839. 1890; Das in Ind. Forester 102 : 472. 1976.

Pl. II : 5

Pseudobulbs 4.5-10.5 × 1.0-2.3 cm, oblong-elliptic, ridged. Leaves petioled, 9.5-26.5 × 2.4-5.5 cm. Inflorescence hysteranthous, 10-55 cm long, 7-19-flowered. Flowers 2-3 cm across, pale or light greenish. Sepals 1.1-1.5 × 0.4-0.7 cm. Petals 1.1-1.4 × 0.1-0.2 cm, filiform. Labellum 1.2-1.5 × 1.1-1.4 cm, pale greenish; mid-lobe orbicular, retuse, light brown tinged at the base; lateral lobes rounded, tinged with light brown; keels 3, dark brown, faint at the base, extending up to one-third of the mid-lobe, wavy, the middle one shorter. Column 0.7-0.9 × 0.3-0.4 cm, narrowly winged, serrulate at the apex. Pollinia 0.5-1.0 mm long.

*Type* : Moulmein, Parish 42 (K, Photo!).

*Fls.* : June-Aug.

*Distrib.* : INDIA : Arunachal Pradesh, Meghalaya, Nagaland; BURMA, THAILAND.

*Notes* : Only recently recorded from India.

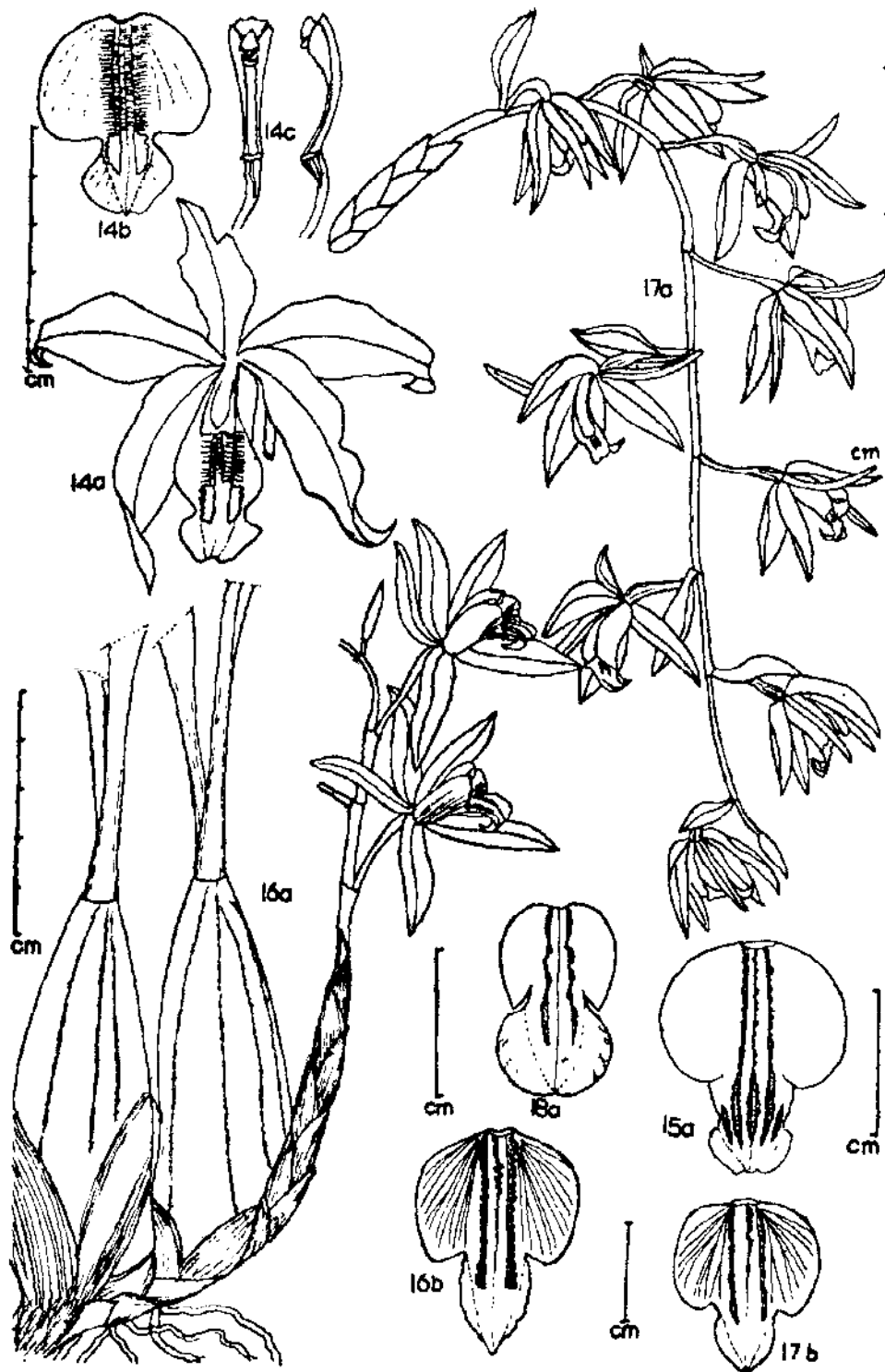
27. *C. rossiana* Reichb. f. in Gard. Chron. 2 : 80. 1884; Hock. f. Fl. Brit. Ind. 5 : 843. 1890 & 6 : 195. 1890; Das in Ind. Forester 102 : 472. 1976.

Fig. 15a

Pseudobulbs 4-7 × 1.2-4.2 cm, ovoid. Leaves long-petioled, 12.5-30.0 × 2.2-5.0 cm. Inflorescence proteranthous, 7.0-20.5 cm long, 1-6-flowered. Flowers 2.5-3.8 cm across, creamy white. Sepals 1.5-2.2 × 0.5-0.9 cm. Petals 1.5-1.9 × 0.2-0.3 cm, linear. Labellum 1.4-1.8 × 1.0-1.2 cm, brownish; mid-lobe subreniform, clawed, serrulate at base; lateral lobes rounded, dark brown; keels 3, sometimes 5 on mid-lobe, nearly up to apex, undulate, warty on the distal ends. Column 1.0-1.4 × 0.3-0.5 cm, winged. Pollinia 1.5 × 1.0 mm. Capsules 3.5-3.7 × 1.5 cm, ellipsoid.

*Type* : Burma, 1884, Ross s. n. (K, Photo!).

*Fls.* : Oct.-Nov.; *Frts.* : Oct. onwards.



Figs. 14-18 : 14a-c. *Cologyne cristata* Lindl. a. Flower. b. Labellum. c. Column.  
 15a. *C. rossiana* Reichb. f. Labellum.  
 16a-b. *C. viscosa* Reichb. f. a. Habit. b. Labellum.  
 17a-b. *C. flaccida* Lindl. a. Inflorescence. b. Labellum.  
 18a. *C. breviscapa* Lindl. Labellum.

*Distrib.* : INDIA : Assam, Manipur; BURMA.

*Notes* : Only recently recorded from India.

28. *C. schultesii* Jain et Das in Proc. Ind. Acad. Sci. 87B (5) : 119. 1978. *C. prolifera* auct. non Lindl. (1830): Lindl. Fol. Orch. Coelog. 10. 1854 *pro parte* (viz. Hooker's collection from Khasi Hills); King & Pantl. in Ann. Roy. Bot. Gard. Cal. 8 : 137. t. 190. 1898.

Figs. 13a, 13b, 13c, 13d

Pseudobulbs 1.5-5.0 × 1.7-2.0 cm, ovoid to ellipsoid. Leaves petioled, 6.3-18.6 × 1.0-3.0 cm. Inflorescence hysteranthous, 12-33 cm long, elongating after proliferation, 4-9 flowered. Flowers 1.5-3.0 cm across, brownish-yellow to dark brown. Sepals 1.2-1.8 × 0.4-0.9 cm. Petals 1.2-1.8 × 0.1-0.2 cm. Labellum 1.0-1.8 × 0.9-1.4 cm; mid-lobe orbicular or sub-quadrate, dark brown; lateral lobes oblong obtuse, dark brown at the apex; apices clasping the column; keels 2, prominent on epichile, extending up to two-thirds of the mid-lobe, brown. Column 1.0-1.2 × 0.3-0.5 cm, winged. Pollinia 0.5 mm. Capsules 2.0-3.0 × 0.7-1.0 cm, ellipsoid.

*Type* : Khasi Hills, Cherrapunjee, Das 60256 (holotype CAL!, Isotype ASSAM!).

*Fls.* : Mar.-June, sometimes January.

*Distrib.* : INDIA : Sikkim, Arunachal Pradesh, Assam, Meghalaya, Manipur, Nagaland; NEPAL, BHUTAN, BURMA, THAILAND.

29. *C. stricta* (Don) Schltr. in Fedde Repert. Beih. iv. 184. 1919; *Cymbidium strictum* Don, Prodr. Fl. Nep. 35. 1825. *Coelogyne elata* Lindl. Gen. & Sp. Orch. 40. 1830; Hook. f. Fl. Brit. Ind. 5 : 838. 1890 (excl. cit. Bot. Mag. 83. t. 5001. 1857); King & Pantl. in Ann. Roy. Bot. Gard. Cal. 8 : 136. t. 188. 1898.

Pseudobulbs 4-10 × 2-5 cm, oblong, ridged. Leaves shortly petioled, 10-30 × 2-7 cm. Inflorescence hysteranthous, 12.5-25.5 cm long, 5-11-flowered. Flowers 2.0-3.5 cm across. Sepals 1.5-2.2 × 0.4-1.0 cm. Petals 1.3-2.0 × 0.2-0.4 cm, linear. Labellum 1.4-2.0 × 1.1-1.6 cm, tinged with golden yellow on mid-lobe and tips of lateral lobes; mid-lobe broadly ovate or rounded, minutely fimbriate; lateral lobes minutely fimbriate at the apex; keels 2, crenulate, white, orange-red at the apex, terminating on yellow blotch. Column 1.0-1.5 cm long, *ca.* 0.5 cm broad at the apex, winged. Pollinia 1.0 × 0.5 mm. Capsules 2-5 × 1.0-1.7 cm.

*Type* : Nepal, Wallich *s. n.*

*Fls.* : Mar.-Apr.; *Frts.* : April onwards.

*Distrib.* : INDIA : Uttar Pradesh, Sikkim, West Bengal, Arunachal Pradesh, Assam Meghalaya, Mizoram, Nagaland; NEPAL, BHUTAN, BURMA.

*Chr. No.* : n=20 (Arora in Taxon 20 : 785. 1971).

*Uses* : Ornamental.

30. *C. suaveolens* (Lindl.) Hook. f. Fl. Brit. Ind. 5 : 832. 1890; Hook. f. in Ann. Roy. Bot. Gard. Cal. 5 : 27. t. 40. 1895. *Pholidota suaveolens* Lindl. in Gard. Chron. 372. 1856.

Pseudobulbs 5-10 × 1-4 cm, ovoid, ellipsoid, ridged. Leaves subsessile or petioled, 7-35 × 3.0-6.8 cm, plicate. Inflorescence synanthous, 11-22 cm long, 6-14-flowered. Flowers 1.5-2.5 cm across, white. Sepals 1.0-1.9 × 0.3-0.7 cm. Petals 1.0-1.7 × 0.3-0.5 cm. Labellum 1.0-1.3 × 0.4-1.0 cm, white, obscurely 3-lobed; mid-lobe broadly ovate or orbicular, acute; lateral lobes narrowly oblong, obtuse; keels 5, unequal, yellow, undulate, confined to epichile only. Column 7-8 × 2-3 mm, straight, narrowly winged. Capsules 2.6-4.5 × 0.8-1.7 cm, ellipsoid.

*Type* : Locality unknown, Lord Bishop of Winchester (K).

*Fls.* : May-June; *Frts.* : June onwards.

*Distrib.* : INDIA : Assam, Meghalaya; BURMA, THAILAND.

31. *C. thailandica* Seidenfaden in Dansk Bot. Ark. 29(4) : 46. 1975; Balak. & Nair in Bull. Bot. Surv. Ind. 18 : 150. 1976 (1979).

Pseudobulbs 3-7 × 1.0-1.6 cm, narrowly ovoid. Leaves petioled, 8-15 × 2.0-3.5 cm. Inflorescence proteranthous, 4-8 cm long, 1-5-flowered. Flowers 2.5-3.0 cm across, greenish-yellow or whitish-green. Sepals 1.5-2.0 × 0.5-0.8 cm. Petals 1.2-1.3 × ca. 0.1 cm, linear. Labellum 1.7-1.8 × 1.3-1.5 cm, whitish, tinged with brown on edges of lateral lobes and on mid-lobe; lateral lobes obtuse, rounded; mid-lobe emarginate, bilobed; keels 3, middle one slightly shorter. Column 1-2 cm long, slightly 3-lobed at apex. Pollinia ca. 1.5 mm. Capsules 2.5-3.0 × 1.2-1.7 cm, 3-winged.

*Type* : Thailand, Ta Khanum, Kanburi, Kerr 0260 (K).

*Fls.* : Jan.-Mar.

*Distrib.* : INDIA : Andamans; THAILAND.

*Notes* : Only recently recorded from India.

32. *C. treutleri* Hook. f. Fl. Brit. Ind. 5 : 837. 1890 & Ic. Pl. t. 2105, 1892.

Pseudobulbs 1.5-2.0×0.6 cm, ovoid, curved. Leaves sessile, ca. 2.5 × 0.8 cm. Inflorescence hysteranthous, ca. 2 cm long. 1-flowered. Flowers ca. 3.5 cm across. Sepals ca. 2.0×0.7 cm, lanceolate. Petals ca. 1.8×0.3 cm, linear. Labellum ca. 1.5×1.2 cm, deeply 3-lobed; mid-lobe orbicular, broadly cuneate at the base, 3-fid at the apex; lateral lobes narrow, oblong, obtuse; keels 3, smooth, extending up to the base of mid-lobe. Column ca. 1.2-0.3 cm, narrowly winged.

*Type* : Sikkim Himalaya, *Treutler* (K, Photo!).

*Distrib.* : INDIA : Sikkim Himalaya; endemic.

*Notes* : Represented only by the type specimen. Perhaps already extinct or awaits fresh collection.

33. *C. uniflora* Lindl. Gen. & Sp. Orch. 42. 1830; Hook. f. Fl. Brit. Ind. 5 : 842. 1890 & in Ann. Roy. Bot. Gard. Cal. 5 : 29.t. 43. 1895; King & Pantl. l.c. 8 : 138.t. 192. 1898.

Pseudobulbs caespitose, 1.5-4.5×0.5-1.5 cm, ellipsoid or flask-shaped. Leaves subsessile, 5-17×0.6-1.2 cm, linear-oblong. Inflorescence proteranthous, erect, 2.6-4.0 cm long, 1-flowered. Flowers 2.0-2.5 cm across, light brownish. Sepals 1.4-1.8×0.3-0.5 cm, dorsally keeled. Petals 1.3-1.7×0.3-0.4 cm. Labellum 1.3-1.7×0.8-1.0 cm, light yellowish, with 3-7-orange spots; mid-lobe oblong, broadly obtuse, entire; lateral lobes narrowly oblong, acute; keels 2 or 3, inconspicuous, slightly ridged. Column 6-9×3 mm, broadly winged. Pollinia ca. 1 mm. Capsules 1.7-2.2×1.0-1.2 cm, obovoid or ellipsoid, 6-winged.

*Type* : Nepal, *Wallich s. n.*, Wall. Num. List No. 1956 (CAL!).

*Fls.* : April-June; *Frts.* : June onwards.

*Distrib.* : INDIA: Sikkim, Mizoram, Tamil Nadu; NEPAL, BHUTAN, BURMA.

34. *C. viscosa* Reichb. f. in Berl. Allg. Gartenz. 24 : 218. 1856 *et* in Gard. Chron. 1085. 1870; Hook. f. Fl. Brit. Ind. 5 : 832. 1890. *C. graminifolia* Par. & Reichb. f. in Trans. Linn. Soc. 30 : 146. 1874; Hook. f. Fl. Brit. Ind. 5 : 831. 1890; Seidenfaden in Dansk Bot. Ark. 29(4) : 37. 1975.

Figs. 16, 16b

Pseudobulbs 3.5-10.0×1.0-4.3 cm, ovoid. Leaves petioled, 18-46×0.8-2.0 cm, narrowly linear. Inflorescence proteranthous, 6-14 cm long, elongating upto 30 cm during fruiting, 1-4-flowered, erect. Flowers 3.5-5.5 cm across, white. Sepals 2.5-3.0×0.8-1.0 cm. Petals 2.4-2.6 cm. Labellum 2.2-2.4×1.8-2.0 cm, white, tinged with yellow at the base of mid-lobe and on sinuses of lateral lobes, brownish outside; mid-lobe oblong, acuminate; lateral lobes dark brown streaked inside; keels 3, lamellate, extending up to half of mid-lobe; distal ends dark brown. Column 1.5-1.7×0.5-0.7 cm white, streaked with yellowish-brown. Pollinia 1.5×1.0 mm.

*Type* : Eastern India; Cult. Flottbeck, near Altona, 1856 Booth.

*Fls.* : Dec.-April.

*Distrib.* : INDIA : Arunachal Pradesh, Assam, Meghalaya, Mizoram, Tripura; BURMA, THAILAND, VIETNAM.

*Uses* : Ornamental.

*Notes* : According to Seidenfaden, there are seven sheets in the Reichenbach herbarium identified by Reichenbach as *C. viscosa*. Perhaps the type material has disappeared as there seems to be no material older than of 1870. These specimens are identical with *C. graminifolia* and therefore, these two taxa are conspecific.

INDEX TO SCIENTIFIC NAMES

<b>Coelogyne</b>	1	<b>C. fuscescens</b>	5, 13
Sect. <b>Ancipites</b>	2, 3	var. <b>brunnea</b>	13
Sect. <b>Carinatae</b>	2, 3	<i>C. fuscescens</i> var. <i>assamica</i>	6
Sect. <b>Coelogyne</b>	2, 3	<b>C. glandulosa</b>	4, 13
Sect. <b>Cristatae</b>	2, 4	var. <b>bournei</b>	14
Sect. <b>Elatae</b>	2, 4	var. <b>glandulosa</b>	14
Sect. <b>Fuliginosae</b>	2, 4	var. <b>sathyanarayanae</b>	14
Sect. <b>Fuscescentes</b>	2, 5	<i>C. glandulosa</i>	14
Sect. <b>Lentiginosae</b>	2, 5	<i>C. goweri</i>	24
Sect. <b>Proliferae</b>	2, 5	<i>C. graminifolia</i>	30, 31
<b>C. albo-lutea</b>	3, 6	<b>C. griffithii</b>	3, 14
<i>C. angustifolia</i>	20, 23	<b>C. hitendrae</b>	3, 8, 15
<b>C. assamica</b>	5, 6	<b>C. holochila</b>	4, 15
<b>C. barbata</b>	1, 4, 7	<b>C. longipes</b>	6, 16, 17
<i>C. brevifolia</i>	25	<i>C. longipes</i>	25
<b>C. breviscapa</b>	5, 7, 27	<b>C. micrantha</b>	24, 12, 16
<i>C. brunnea</i>	13	<b>C. mossiae</b>	5, 18
<i>C. corrugata</i>	18	<i>C. mossiae</i>	14
<b>C. corymbosa</b>	4, 8, 9, 21	<b>C. nervosa</b>	4, 18
<b>C. cristata</b>	4, 9, 27	<i>C. nervosa</i>	13
<i>C. elata</i>	15, 28	<b>C. nitida</b>	3, 8, 19, 21
<b>C. fimbriata</b>	5, 10, 12	<i>C. nitida</i>	24
<b>C. flaccida</b>	3, 10, 22, 27	<b>C. occultata</b>	4, 8, 20, 21
<i>C. flavida</i>	24	<i>C. ocellata</i>	24
<b>C. fuliginosa</b>	5, 11, 12	<i>C. ochracea</i>	19

<b>C. odoratissima</b>	5, 20	<b>C. stricta</b>	4, 28
var. <i>angustifolia</i>	23	<b>C. suaveolens</b>	5, 29
var. <i>odoratissima</i>	23	<b>C. thailandica</b>	3, 29
<b>C. ovalis</b>	5, 12, 23	<b>C. treutleri</b>	4, 30
<b>C. prolifera</b>	6, 17, 23, 24	<b>C. uniflora</b>	5, 30
<i>C. prolifera</i>	28	<b>C. viscosa</b>	3, 27, 30, 31
<b>C. punctulata</b>	1, 3, 8, 20, 23, 24	<i>Cymbidium nitidum</i>	19, 20, 24
f. <i>brevifolia</i>	25	<i>C. strictum</i>	28
f. <i>punctulata</i>	25	<i>Neogyne</i>	1
<b>C. raizadae</b>	6, 17, 25	<b>Orchidaceae</b>	1
<b>C. rigida</b>	4, 22, 26	<i>Panisea</i>	1
<b>C. rossiana</b>	3, 26, 27	<i>Pholidota suaveolens</i>	29
<b>C. schultesii</b>	6, 17, 24, 28	<i>Pleione</i>	1

## FASCICLES OF FLORA OF INDIA

Family	Fascicle	Date of Publication
CORIARIACEAE	1	Oct. 1978
PAEONIACEAE	1	Oct. 1978
DILLENiaceae	2	May 1979
POACEAE (Tribe GARNOTIEAE)	3	Nov. 1979
SIMAROUBACEAE	4	April 1980
BALANITACEAE	4	April 1980