

Species Datasheet

Datasheet No. A-061.048.033
(family.genus.species)

DBT- Network Programme

1. Taxon:

Species: *Dendrobium moschatum* (Banks) Sw.

Subspecies:

Variety:

Cultivar

Hybrid

Image file

2. Synonyms:

Callistacalceola (Carey ex Hook.) Kuntze

Callistacalceolaria (Carey ex Hook.) Kuntze

Callistamoschata (Buch.-Ham.) Kuntze

Cymbidiummoschatum (Buch.-Ham.) Willd.

Dendrobiumcalceolaria Carey ex Hook.

Dendrobiumcupreum Herb. ex Lindl.

Dendrobiummoschatum Wall. ex D. Don [Illegitimate]

Dendrobiummoschatum var. *cupreum* (Lindl.) Rchb. f.

Dendrobiummoschatum var. *unguipetalum* I. Barua

Epidendrummoschatum Buch.-Ham.

Thicuaniamoschata (Buch.-Ham.) Raf.

3. Systematic Position:

APG IV (2016)

- Kingdom: Plantae
- Clade: Angiosperms
- Clade: Monocots
- Order: Asparagales Link.
- Family: Orchidaceae Juss.
- Subfamily: Epidendroideae
- Tribe: Malaxidinae
- Subtribe: Dendrobiinae
- Genus: *Dendrobium* Sw.
- Species: *Dendrobium moschatum* (Banks) Sw.

Bentham and Hooker (1862)

Kingdom: Plantae
Division: Phanerogamia
Class: Monocotyledonae
Series: Microspermae
Ordo: Orchideae
Tribus: Epidendreae
Subtribus: Dendrobieae
Genus: *Dendrobium* Sw.
Species: *Dendrobium moschatum* (Banks) Sw.

4. Distribution:

Global: Bangladesh, Cambodia, China South-Central, East Himalaya, India, Laos, Myanmar, Nepal, Thailand, Vietnam, West Himalaya

India: Assam, Manipur, Meghalaya, Mizoram, Nagaland, Arunachal Pradesh, Sikkim, West Bengal, Madhya Pradesh, Bihar, Odisha,

Uttarakhand, Chhattisgarh

5.Indigenous/Exotic/Endemic;Cultivated/Wild:Indigenous, wild and cultivated

6.Threat Status:

IUCN:

BSI:

7.Habit and Habitat:Epiphyte, subtropical climate

8.Life Form: Phanerophyte

9.Economic Importance:Ornamental, medicinal, leaf juice as ear drop, pseudobulb paste is used to treat fractured and dislocated bones

10. Probable Progenitor of:

11.DNA

C-value Methodology

2C (9.32 pg) ⁴⁰ Feulgenmicrodensitometry⁴⁰

12.Basic chromosome number(s): $x=19^{6, 12, 14, 40, 47, 50, 51, 58}, 20^4, 42$

13. Zygotic chromosome number(s): $2n=38^{6, 12, 14, 40, 47, 50, 51, 58}, 40^4, 42$

14. Gametic chromosome number(s): $n=19^{47, 58}$

15.Specialized chromosomes (B chromosomes/Sex chromosomes/Polytene chromosomes/Neocentric chromosomes):

Image file

16.Ploidy level:Diploid^{4,6, 12, 14, 40, 42, 47, 50, 51, 58}

Image file

17.Agametoploidy:

18.Nature of polyploidy (auto, segmental, allo, autoallo):

19.Genomic formula:

20.Aberrant chromosome number(s)(aneuploidy, aneusomaty, polysomaty):

21.Somatic chromosomes:^{4, 42, 47}

KaryotypeMedian, submedian, 1 pair subterminal^{4, 42, 47}

Chromosome sizeSmall^{4, 42, 47}

NOR chromosome(s)^{4, 42}Sau, H. & A. K. Sharma. 1983., ^{6, 4}Begum et al 2009

Degree of asymmetrySymmetrical^{4, 42, 47}

Image file

22. Banding pattern(s):

Image file

23.Physical mapping of chromosomes:

In situ hybridization

Image file

Fluorescent in situ hybridization:Repetitive DNA probes DmoO11, DmoO14, DmoO22 (telomeric), 18S-5.8S-25S, 5S rRNA genes⁴

Image file

24.Genomic in situ hybridization:

Image file

25. Linkage map:

Image file

26.Chromosome associations:

Female meiosis

Male meiosis19II⁴⁷

Image file

27.Chromosome distribution at anaphase I:

28. Genetic diversity:

Chromosomal level

Image file

DNA level

29. Any other information (Apomixis; Inversion; Male sterility; Pollen grain mitosis; Pollen stainability; Translocation etc.):