Species Datasheet

Datasheet No. A-061.048.018
(family.genus.species)

DBT- Network Programme

1.Taxon:

Species: *Dendrobiumchrysanthum*Wall. exLindl.

Subspecies:
Variety:
Cultivar
Hybrid

Image file

2. Synonyms:

Callistachrysantha (Wall. ex Lindl.) Kuntze
Dendrobiumchrysanthum var. *anophthalama*Rchb.f.
Dendrobiumchrysanthum var. *microphthalama*Rchb.f.
*Dendrobiumpaxtonii*Lindl.

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 chrysanthum* Wall. exLindl.

Bentham and Hooker(1862)
Kingdom: Plantae
Division: Phanerogamia
Class:Monocotyledonae
Series: Microspermae
Ordo: Orchideae
Tribus: Epidendreae
Subtribus: Dendrobieae
Genus: *Dendrobium* Sw.
Species: *Dendrobium chrysanthum* Wall. exLindl.

4.Distribution:

Global: China South-Central, China Southeast, East Himalaya, Hainan, Laos, Myanmar, Nepal, Thailand, Tibet, Vietnam, West Himalaya

India: Himalayas from Kumaon to Nepal, Bhutan Assam, Meghalaya, Nagaland 900-1800m

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

6.Threat Status:

IUCN:

BSI:

7.Habit and Habitat: Epiphyte in the shaded forests

8.Life Form: Phanerophyte

9.Economic Importance: Cultivated ornamental, Medicinal, leaf powder used as antipyretic, immunoregulatory, skin diseases

10. Probable Progenitor of:

11.DNA

C-value **Methodology**

12.Basic chromosome number(s):x=19[18, 26, 29, 42, 46, 47, 54, 55, 58, 59],20[3, 31, 33, 34, 36, 38, 42, 45]

13. Zygotic chromosome number(s):2n=38[18, 26, 29, 42, 46, 47, 54, 55, 58, 59] ,

40[3, 31, 33, 34, 36, 42] ,

76[9]

14. Gametic chromosome number(s):n=19[47] , 20 [36, 38, 42, 45]

16. Specialized Chromosomes (B chromosomes/ Sex chromosomes/ Ring chromosomes, etc.):

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

Image file

16.Ploidy level: Diploid[3,18, 26, 29, 31, 33, 34, 36, 38, 42, 45, 46, 47, 54, 55, 58, 59] ,

Tetraploid[9]

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: Cytotype 2n=38[46, 47]

Cytotype 2n=40[27, 33, 34]

KaryotypeCytotype 2n=38:Median, submedian 2 pairs subterminal[46, 47]

Cytotype 2n=40: Median, submedian 6 pairs subterminal[27, 33, 34]

Chromosome size: Small[27, 33, 34, 46, 47]

NOR chromosome(s)2 [38, 45, 47]

Degree of asymmetry: Moderately asymmetrical[27, 33, 34, 46, 47]

Image file

22. Banding pattern(s):

Image file

23.Physical mapping of chromosomes:

In situ hybridization

Image file

Fluorescent in situ hybridization:

Image file

24.Genomic in situ hybridization:

Image file

25. Linkage map:

Image file

26.Chromosome associations:

Female meiosis

Male meiosis Cytotype n=19: 19II [47]

Cytotype n=20:20II plus one desynaptic bivalent associated with nucleolus, and one ring quadrivalent , some PMC's show fragmentation of chromosomes at M-I [38, 45]

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;Translocationsetc.): Translocation[38, 45]