

Species Datasheet

Datasheet No. A-061.045.015
(family.genus.species)

DBT- Network Programme

1. Taxon:

Species: *Cymbidium lancifolium* Hook.

Subspecies:

Variety:

Cultivar

Hybrid

Image file

2. Synonyms:

Cymbidiopsis lancifolia (Hook.) H.J.Chowdhery *Cymbidium aspidistrifolium* Fukuy., *Cymbidium bambusifolium* Fowlie, F.Mark & F.S.Ho, *Cymbidium caulescens* Ridl., *Cymbidium cuspidatum* Blume, *Cymbidium gibsonii* Lindl. & Paxton, *Cymbidium javanicum* Blume, *Cymbidium kerrii* Rolfe ex Downie, *Cymbidium lancifolium* var. *aspidistrifolium* (Fukuy.) S.S.Ying, *Cymbidium lancifolium* f. *aspidistrifolium* (Fukuy.) T.P.Lin, *Cymbidium lancifolium* var. *papuanum* (Schltr.) S.S.Ying, *Cymbidium lancifolium* var. *syunitianum* (Fukuy.) S.S.Ying, *Cymbidium maclehoseae* S.Y.Hu, *Cymbidium multiradicatum* Z.J.Liu & S.C.Chen, *Cymbidium nagifolium* Masam, *Cymbidium nagifolium* f. *conforme* Suetsugu, *Cymbidium papuanum* Schltr., *Cymbidium rhizomatosum* Z.J.Liu & S.C.Chen, *Cymbidium syunitianum* Fukuy.,

3. Systematic Position:

APG IV (2016)

- Kingdom: Plantae
- Clade: Angiosperms
- Clade: Monocots
- Order: Asparagales Link.
- Family: Orchidaceae Juss.
- Subfamily: Epidendroideae
- Tribe: Cymbidieae
- Subtribe: Cymbidiinae
- Genus: *Cymbidium* Sw.
- Species: *Cymbidium lancifolium* Hook.

Bentham and Hooker(1862)

Kingdom: Plantae
Division: Phanerogamia
Class: Monocotyledonae
Series: Microspermae
Ordo: Orchideae
Tribus: Vandaeae
Subtribus: Cymbidieae
Genus: *Cymbidium* Sw.
Species: *Cymbidium lancifolium* Hook.

4. Distribution:

Global: Assam, Bangladesh, Borneo, Cambodia, China South-Central, China Southeast, East Himalaya, Hainan, Japan, Jawa, Korea, Laos, Malaya, Maluku, Myanmar, Nansei-shoto, Nepal, New Guinea, Sulawesi, Sumatera, Taiwan, Thailand, Tibet, Vietnam, West Himalaya

India: Extends along Himalayas from Nepal to Khasi Jaintia hills 1200-1800m

5.Indigenous/Exotic/Endemic;Cultivated/Wild:

6.Threat Status:

IUCN:

BSI:

7.Habit and Habitat:Terrestrial, grows in thick forests in humus rich places at 1700-1900 m

8.Life Form: Phanerophyte

9.Economic Importance:Cultivated ornamental

10. Probable Progenitor of:

11.DNA

C-value Methodology

12.Basic chromosome number(s): $x=19^{1, 2, 13, 14, 15, 23, 30, 39, 42, 45, 56}, 20^{47, 57}$

13. Zygotic chromosome number(s): $2n=38^{1, 2, 13, 14, 15, 23, 30, 42}, 39^1, 40^{47}$

14. Gametic chromosome number(s): $n=19^{23, 30, 39, 45, 56}, 20^{57}$

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

Image file

16.Ploidy level:Diploid^{1, 2, 13, 14, 15, 23, 30, 39, 42, 45, 47, 56, 57}

Image file

17.Agametoploidy:

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

19.Genomic formula:

20. Aberrant chromosome number(s) (aneuploidy, aneusomy, polysomy): $2n=34$ aneusomatic cells leading to 17:17 segregation at A-I detected in meiotic cycle³⁹,
 $2n=39$ plants^{1, 2}

21. Somatic chromosomes:¹

Karyotype Median, submedian, 1 pair subtelocentric¹

Chromosome size Small to medium¹

NOR chromosome(s)

Degree of asymmetry Symmetrical¹

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 19II^{23, 30, 39}

Image file

27. Chromosome distribution at anaphase I: 19:19 segregations at A-I, some cells show 22:16 and 18:2:18³⁹

28. Genetic diversity:

Chromosomal level

Image file

DNA level

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