

Datasheet No. A-061.002.002
(family.genus.species)

DBT- Network Programme

1.Taxon:

Species: *Acanthophippium striatum* Lindl.

Subspecies:

Variety:

Cultivar

Hybrid

Image file

2. Synonyms: *Acanthophippium simplex* Aver., *Acanthophippium sinense* Rolfe, *Acanthophippium unguiculatum* (Hayata) Fukuy., *Tainia unguiculata* Hayata

3.Systematic Position:

APG IV (2016)

- Kingdom: Plantae
- Clade: Angiosperms
- Clade: Monocots
- Order: Asparagales Link
- Family: Orchidaceae Juss.
- Subfamily: Epidendroideae
- Tribe: Collabieae
- Genus: *Acanthophippium* Blume
- Species: *Acanthophippium striatum* Lindl.

Bentham and Hooker(1862)

Kingdom: Plantae

Division: Phanerogamia

Class: Monocotyledonae

Series: Microspermae

Ordo: Orchideae

Tribus: Epidendreae

Subtribus: Beletieae

Genus: *Acanthophippium* Blume

Species: *Acanthophippium striatum* Lindl.

4.Distribution:

Global: Myanmar, Thailand, Malaysia, Vietnam, Java, Lesser Sunda Islands, China and Taiwan

India: Foothills of the Himalayas, Assam, eastern Himalayas

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

6.Threat Status:

IUCN:

BSI:

7.Habit and Habitat: Terrestrial species grows in very shady and moist places in thick forests near streams at 1300 m

8.Life Form: Cryptophytes

9.Economic Importance: Cultivated ornamental

10. Probable Progenitor of:

11.DNA

C-value Methodology

12.Basic chromosome number(s): $x=20^{8, 13}, 21^5, 6, 24^1, 2, 4, 27^7$

13. Zygotic chromosome number(s): $2n=40^{8, 13}$

Mehra, P.N. & Vij, S.P. 1970 ;Vij, S.P. & Mehra, P.N. 1976

42^{5, 6}

Li, X. I. & R. y. Chen. 1989. Studies on chromosomes of Orchidaceae in China I. Chromosome numbers of some orchids in China. Pp. 301--307 in D. Hong (editor), Plant Chromosome Research 1987.

Li, X., R. Chen & R. Tanaka. 1992. Reports on chromosome numbers of some orchids cultivated in China. Kromosomo 67--68: 2301--2311.

48^{1, 2, 4}

Biswas, B. K. 1980b. In IOPB chromosome number reports LXVI. Taxon 29: 169. ,

Hsu, C. 1976. Cytological studies on the economically promising wild Orchids found on Taiwan. Proc. Natl. Sci. Council (Taiwan). 9: 61--78.

Chung. 2005. The genus of AcanthephippiumBlume (Orchidaceae) in Taiwan. Taiwaniana 50(3): 200--208.

14. Gametic chromosome number(s): $n=27^7$ Mehra, P. N & Sehgal. 1983. Cytology of Orchids of Khasi and Jaintia Hills. , Sehgal 1978

20⁸MEHRA, P.N., & S.P. VIJ. 1970. In IOPB chromosome number reports XXV. Taxon 19: 102-113.

15.Specialized chromosomes (B chromosomes/Sex chromosomes/Polytene

chromosomes/Neocentric chromosomes):

Image file

16.Ploidy level:Diploid20^{1, 2, 4, 5, 6, 7, 8, 13}

Mehra, P.N. & Vij, S.P. 1970 ;Vij, S.P. & Mehra, P.N. 1976

42 Li, X. I. & R. y. Chen. 1989. Studies on chromosomes of Orchidaceae in China I. Chromosome numbers of some orchids in China. Pp. 301--307 in D. Hong (editor), Plant Chromosome Research 1987.

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17. Agametoploidy:

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

19. Genomic formula:

20. Aberrant chromosome number(s) (aneuploidy, aneusomaty, polysomaty): variable number of chromosomes $n=25-28$ in different members of tetrads shows probable hybrid nature of the species^{7, 11} (Mehra, P. N & Sehgal. 1983, Sehgal 1978)

21. Somatic chromosomes:

Karyotype

Chromosome size

NOR chromosome(s)

Degree of asymmetry

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 2011⁸ MEHRA, P.N., & S.P. VIJ. 1970. In IOPB chromosome number reports XXV. Taxon 19: 102-113.

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.): 50% of abnormal pollen indicating aberrant meiosis ⁷Mehra, P. N & Sehgal. 1983