

Species Datasheet

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Datasheet No. P-051.026.001
(family.genus.species)

DBT- Network Programme

1.Taxon:

Species: *Microsorium membranaceum* (D.Don) Ching

Subspecies:

Variety:

Cultivar

Hybrid

Image file

2. Synonyms:

Pleopeltis grandifolia (Wall. ex Christ) T. Moore

Pleopeltis membranacea (D. Don) T. Moore ex Bedd.

Polypodium grandifolium Wall. ex Christ

Polypodium hymenodes Kunze

Polypodium membranaceum D. Don

Polypodium membranaceum var. *grandifolium* (Wall. ex Christ) Alderw.

Polypodium transparens C. Presl ex Ettingsh.

3.Systematic Position:

Christenhusz 2011

- Class: Equisetopsida C.Agardh
- Subclass: Polypodiidae Cronquist, Takht. & Zimmerm.
- Order: Polypodiales Link.
- Family: Polypodiaceae J. Presl & C. Presl
- Subfamily: Microsoroideae B.K. Nayar
- Genus: *Microsorium* Link
- Species: *Microsorium membranaceum* (D.Don) Ching
- Subspecies:
- Variety:

4.Distribution:

Global:: India, Nepal, Bhutan, Tibet, China, Taiwan, Vietnam, Thailand, Phillipines, Sri Lanka

India: Jammu & Kashmir, Himachal Pradesh, Sikkim, Darjeeling, Assam, Arunachal Pradesh, Meghalaya, Nagaland, Manipur, central India, Pachmarhi hills, south India, Mahabaleshwar, Khandala, Purandar

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

6.Threat Status:

IUCN:

BSI:

7.Habit and Habitat:Grows as an lithophyte on wet rocks along river banks and besides water falls or in forest as an epiphyte. Fairly common from 1500-2700m altitude, way to Pindari, Loharkhet

8.Life Form:

9.Economic Importance:

10. Probable Progenitor of:

11.DNA

C-value Methodology

12.Basic chromosome number(s): $x=36^{3, 4, 7, 9, 15, 16, 17, 22, 23, 24, 25, 26, 28, 36, 37, 38, 39}$,
 $37^{18, 27, 31}$

13. Zygotic chromosome number(s): $2n=72^{22, 23, 28, 30}$,
 $74^{27, 31}$

14. Gametic chromosome number(s): $n=36^{3, 4, 7, 9, 15, 16, 17, 22, 23, 24, 25, 26, 28, 36, 37, 38, 39}$,
 $37^{18, 27}$,

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

Image file

16.Ploidy level:Diploid (sexual) ^{3, 4, 7, 9, 15, 16, 17, 18, 22, 23, 24, 25, 27, 28, 30, 31, 36, 37, 38, 39} ,

Tetraploid (sexual)^{2, 6, 14}

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:²³

KaryotypeAllsubterminal except one median²³

Chromosome sizeMedium²³

NOR chromosome(s)

Degree of asymmetryAsymmetrical²³

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 Diploid: $36\text{II}^{2, 3, 7, 9, 15, 16, 17, 22, 23, 24, 25, 26, 28, 36, 37, 38, 39}$,
 $37\text{II}^{18, 27, 30, 31}$,

Diploid (hybrid): $22\text{II}+28\text{I}, 21\text{II}+30\text{I}^4$,

Tetraploid: $72\text{II}^{2, 6, 14}$

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.):