Species Datasheet

Datasheet No. P-040.001.006
(family.genus.species)

DBT- Network Programme

1.Taxon:

Species: *Blechnum orientale* L.

Subspecies:
Variety:
Cultivar
Hybrid

Image file

2. Synonyms:

Blechnumorientale var. *orientale*

3.Systematic Position:
Christenhusz 2011

- Class: Equisetopsida C.Agardh
- Subclass: Polypodiidae Cronquist, Takht. & Zimmerm.
- Order: Polypodiales Link.
- Family: Blechnaceae Newman
- Subfamily:
- Genus: *Blechnum* L.
- Species: *Blechnum orientale* L.
- Subspecies*:*
- *Variety:*

4.Distribution:

Global: India, Nepal, south China, throughout Southeast Asia to southern Japan, Australia and Polynesia. Native to Western Australia

India: Eastern Himalayas 150-250m

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

6.Threat Status:

IUCN:

BSI:

7.Habit and Habitat:a primary coloniser once an area of forest is cleared. It may remain the dominant plant if there are repeated fires of the area. It is a fern of open areas.

8.Life Form:

9.Economic Importance:

10. Probable Progenitor of:

11.DNA
C-value Methodology

12.Basic chromosome number(s):x=32 [10, 22, 27], 33[1, 6, 8, 9, 13, 14, 15, 18, 19, 21, 23, 30, 31], 34[2, 5, 17]

13. Zygotic chromosome number(s):2n=66 [1, 8, 9, 15]

14. Gametic chromosome number(s):n=32 [10, 22, 27]

Roy & Singh1975, Khare 1980, Singh & Roy 1988

33[1, 6, 13, 14, 18, 19, 21, 23, 30, 31] Abraham et al 1962, Roy & Singh1973, Vasudeva&Bir 1982,83, Mahabale&Kamble 1981,Irudayaraj &Manickam 1987, Manickam&Irudayaraj 1988, SankariAmmal 1990, Mitui 1966a

MITUI, K. 1968. Chromosomes and speciation in ferns. Sci. Rep. Tokyo KyoikuDaigaku Sect. B 13: 285-333.

34[2, 5, 17]Mehra&Bir 1958,Bir 1965b, Ghatak 1977

66[29]Tindale, Mary D., and S. K. Roy. "A cytotaxonomic survey of the Pteridophyta of Australia."Australian Systematic Botany15.6 (2002): 839-937.

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

Image file

16.Ploidy level: Diploid (sexual) [1, 6, 8, 9, 10, 13, 14, 15, 18, 19, 21, 22, 23, 27, 30, 31]Abraham et al 1962,Kawakami, S. M., M. Ito, S. Kawakami & K. Kondo. 1997. Induction of apogamy in twelve fern species and the study of their somatic chromosomes. Chromosome Sci. 1: 89–96.

Kato. 1999. A cytotaxonomic study of Hainan (S. China) pteridophytes with notes on polyploidy and apogamy of Chinese species. Pages 1--19 in X.-c.Zhang & K.-h. Sing (eds.), Ching Memorial Volume. China Forestry Publishing House, Beijing.

Manton & Sledge 1954

Roy & Singh1975, Khare 1980, Singh & Roy 1988

33 Abraham et al 1962, Roy & Singh1973, Vasudeva&Bir 1982,83, Mahabale&Kamble 1981,Irudayaraj &Manickam 1987, Manickam&Irudayaraj 1988, SankariAmmal 1990,

Mitui 1966a

MITUI, K. 1968. Chromosomes and speciation in ferns. Sci. Rep. Tokyo KyoikuDaigaku Sect. B 13: 285-333.

34[2, 5, 17]Mehra &Bir 1958, Bir 1965b, Ghatak 1977

Tetraploid (sexual)[29]Tindale, Mary D., and S. K. Roy. "A cytotaxonomic survey of the Pteridophyta of Australia."Australian Systematic Botany15.6 (2002): 839-937.

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:

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 Diploid: 33II[1, 6, 13, 14, 18, 19, 21, 23,30, 31]Abraham et al 1962, Roy & Singh1973, Vasudeva&Bir 1982,83, Mahabale&Kamble 1981,Irudayaraj &Manickam 1987, Manickam&Irudayaraj 1988, SankariAmmal 1990,

Mitui 1966a

MITUI, K. 1968. Chromosomes and speciation in ferns. Sci. Rep. Tokyo KyoikuDaigaku Sect. B 13: 285-333.

32II[10, 22, 27]Roy & Singh1975, Khare 1980, Singh & Roy 1988

34II[2, 5, 17]Mehra&Bir 1958, Bir 1965b, Ghatak 1977

Tetraploid: 66II[27]Tindale, Mary D., and S. K. Roy. "A cytotaxonomic survey of the Pteridophyta of Australia."Australian Systematic Botany15.6 (2002): 839-937.

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.):