

Species Datasheet

Datasheet No. A-377.013.003
(family.genus.species)

DBT- Network Program

1.Taxon:

Species: *Blepharis maderaspatensis* (L.) B. Heyne ex Roth

Subspecies

Variety

Cultivar

Hybrid

Image file

2. Synonyms: *Acanthusciliaris* Burm.f., *A.maderaspatensis* L., *Blepharis abyssinica* Hochst. ex A.Rich., *B.boerhaviifolia* Pers., *B.boerhaviifolia* Roth, *B.boerhaviifolia* var. *maderaspatensis* (L.) Nees, *B.boerhaviifolia* var. *micrantha* Sond., *B.boerhaviifolia* var. *nigronevulosa* De Wild. & T.Durand, *B.breviciliata* Fiori, *B.calaminthifolia* Pers., *B.gueinzi* T.Anderson, *B.maderaspatensis* var. *abyssinica* Fiori, *B.maderaspatensis* subsp. *maderaspatensis*, *B.maderaspatensis* subsp. *rubifolia* (Schumach.) Napper, *B.procumbens* B.Heyne ex Roth, *B.procurrens* Nees, *B.rubifolia* Schumach., *B.teaguei* Oberm., *B.togodelia* Solms ex Schweinf.

3. Systematic Position:

APG IV (2016)

- Kingdom: Plantae
- Clade: Angiosperms
- Clade: Eudicots
- Clade: Superasterids
- Clade: Asterids
- Order: Lamiales
- Family: Acanthaceae Juss.
- Genus: *Blepharis* Juss.
- Species: *B. maderaspatensis* (L.) B. Heyne ex Roth

Bentham and Hooker (1862)

- Kingdom: Plantae
- Division: Phanerogamia
- Class: Dicotyledons
- Subclass: Gamopetalae
- Series: Bicarpellatae
- Cohors: Personales
- Ordo: Acanthaceae Juss.
- Genus: *Blepharis* Juss.
- Species: *B. maderaspatensis* (L.) B. Heyne ex Roth

4.Distribution:

Global: India, Myanmar, Sri Lanka and Tropical Africa

India: Karnataka, Kerala, Maharashtra, Tamil Nadu

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

6.Threat Status:

IUCN:

BSI:

7.Habit and Habitat:Herb/Shrub

8.Life Form:Chamaephytes

9.Economic Importance:

10. Probable Progenitor of:

11.DNA

C-valueMethodology

12.Basic chromosome number(s):

13. Zygotic chromosome number(s): $2n=22^5$, $2n=23^5$, $2n=24^5$

14. Gametic chromosome number(s): $n=11^5$

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

Image file

16.Ploidy level:Diploid⁵

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-Three pairs of median centromeres, 2 pairs of sub-median centromeres, One of the pairs with sub-median centromeres shows satellites on the short arms and 6 pairs of telocentric chromosomes of which one pair possesses satellites⁵

Chromosome size-2.91 μm to 7 μm⁵

NOR chromosome(s)

Degree of asymmetry:

22. Banding pattern(s):

Image file

23Physicalmappingofchromosomes:

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

27.Chromosome distribution at anaphase I:

28. Genetic diversity:

Chromosomal level-Yes⁵

DNA level

29. Any other information(**Apomixis; Inversion; Male sterility; Pollen grain mitosis; Pollen stainability; Translocations etc**): The presence of telocentric chromosomes in *B. maderaspatensis* is one of the rare instances in dicots.The telocentric condition of the chromosomes raises several important questions relating to the position, nature and stability of centromere during cell division.