

Species Datasheet

Datasheet No. A-377.009.002
(family.genus.species)

DBT- No.

1.Taxon:

Species:*Barleria acuminata*Wight
Subspecies
Variety
Cultivar
Hybrid
Image file

2. Synonyms:*Barleria tomentosavar. acuminata*(Wight ex Nees) C.B.Clarke

3.Systematic Position:

APG IV 2016

Kingdom: Plantae
Clade: Angiosperms
Clade: Eudicot
Clade: Asterids
Order: Lamiales Bromhead
Family: AcanthaceaeJuss.
Genus: *Barleria*L.
Species: *B. acuminata* Wight

Bentham and Hooker (1862)

Kingdom: Plantae
Division: Phanerogamia
Class: Dicotyledons
Subclass: Gamopetalae
Series: Bicarpellatae
Cohors: Personales
Ordo: Acanthaceae Juss.
Genus: *Barleria*L.
Species: *B. acuminata*Wight

4.Distribution:

Global: India

India: Maharashtra, Karnataka, Kerala, Andhra Pradesh and Tamil Nadu.

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

6.Threat Status:

IUCN:

BSI:

7.Habit and Habitat:Shrub. Grows indeciduous forests and inopen hilly regions as well as on roadsides.

8.Life Form:Chamaephytes

9.Economic Importance:

10. Probable Progenitor of:

11.DNA

C-valueMethodology

12.Basic chromosome number(s):x=20⁴

13. Zygotic chromosome number(s):2n=40^{2, 4, 5}

14. Gametic chromosome number(s):n=20³

15.Specialized chromosomes (B chromosomes/Sex chromosomes/Polytenechromosomes/ Neocentric Chromosomes etc):

Image file

16.Ploidy level:Diploid^{4, 5}

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 –10 medium size chromosomes (2.5 to 4µm) metacentric, 10 short sizechromosomes (1µm to 2.5µm) metacentric, 14 short sizechromosomes (1µm to 2.5µm) sub-metacentric and 6 short sizechromosomes (1µm to 2.5µm) with satellites on short arm⁴.

6 pairs are metacentric, 8 pairs sub metacentric, 4 pairs sub telocentric and 2 pairs telocentric⁵

Chromosome size-Range from 2.33 to 4.84 µm⁵

NOR chromosome(s)

Degree of asymmetry:Symmetrical⁴, Medium asymmetry⁵

22. Banding pattern(s):

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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: 20II^{4, 5}. Meiosis was normal except for secondary association of bivalents at metaphase in varying frequencies⁵

27.Chromosome distribution at anaphase I:Regular separation⁵

28. Genetic diversity:

Chromosomal level

DNA level

29.Any other information: Pollen fertility at 76%⁵