

Species Datasheet

Datasheet No. A-377.009.004
(family.genus.species)

DBT- No.

1.Taxon:

Species:*Barleriacourtallica*Nees
Subspecies
Variety
Cultivar
Hybrid
Image file

2. **Synonyms:***Barleria nutans* Nees, *B. inaequalis*Benth.

3. Systematic Position:

APG IV (2016)

Kingdom: Plantae
Clade: Angiosperms
Clade: Eudicot
Clade: Asterids
Order: Lamiales Bromhead
Family: Acanthaceae Juss.
Genus: *Barleria* L.
Species: *B. courtallica*Nees

Bentham and Hooker(1862)

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

4.Distribution:

Global:India and Sri Lanka.

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

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

6.Threat Status:

IUCN:

BSI:

7.**Habit and Habitat:**Shrub.Grows indeep shade localities along streams inmoist evergreen and semi-evergreen forests athigher altitudes.

8.**Life Form:**Chamaephytes

9.**Economic Importance:**Medicinal.

10. **Probable Progenitor of:**

11.DNA

C-valueMethodology

12.**Basic chromosome number(s):** $x=20^4$

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

14. **Gametic chromosome number(s):** $n=20^2$

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

Image file

16.**Ploidy level:**Diploid², Autopolyploid⁵

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 –Majority metacentric⁵
Chromosome size-2.33μ to 6.33μ⁵
NOR chromosome(s)
Degree of asymmetry:Symmetrical⁵

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:Meiosis was irregular due to multivalent association⁵

Female meiosis

Male meiosis

27.Chromosome distribution at anaphase I:Irregular separation. Quadriavalents, trivalents, bivalents and univalents were observed in varying frequencies⁵

28. Genetic diversity:

Chromosomal level

DNA level

29.Any other information:Pollen fertility at 38%