

Species Datasheet

Datasheet No. A-377.009.003
(family.genus.species)

DBT- No.

1.Taxon:

Species: *Barleria buxifolia* L.

Subspecies

Variety

Cultivar

Hybrid

Image file

2. **Synonyms:** *Barleria buxifolia* Roxb, *B.buxifolia* var. *mysorensis* (B.Heyne ex Roth) Remadevi

3. Systematic Position:

APG IV (2016)

Kingdom: Plantae

Clade: Angiosperms

Clade: Eudicot

Clade: Asterids

Order: Lamiales

Family: Acanthaceae Juss.

Genus: *Barleria* L.

Species: *B. buxifolia* L.

Bentham and Hooker(1862)

Kingdom: Plantae

Division: Phanerogamia

Class: Dicotyledons

Subclass: Gamopetalae

Series: Bicarpellatae

Cohors: Personales

Ordo: Acanthaceae Juss.

Genus: *Barleria* L.

Species: *B. buxifolia* L.

4.Distribution:

Global: India.

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

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

6.Threat Status:

IUCN:

BSI:

7. **Habit and Habitat:** Shrub. Grows in open lands especially in drier parts.

8. **Life Form:** Chamaephytes

9. **Economic Importance:** Medicinal.

10. **Probable Progenitor of:**

11. **DNA**

C-value Methodology

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

13. **Zygotic chromosome number(s):** $2n=40^{2, 4, 5, 6}$

14. **Gametic chromosome number(s):** $n=20^{4, 5, 7}$

15. **Specialized chromosomes (B chromosomes/Sex chromosomes/Polytene**

Chromosomes/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 –6 long size(more than 4µm) metacentric chromosomes, 10 medium size (2.5 to 4µm) metacentric chromosomes, 12 medium sizemetacentric chromosomes, 2 short (1 to 2.5µm) sub metacentric, 2 short metacentric chromosomes, 8 short sub metacentric and 2 short telocentric chromosomes⁴

Chromosome size-1.4µ to 2.5µ⁶

NOR chromosome(s)

Degree of asymmetry: Majority Symmetrical^{4, 6}

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: 20 II. Meiosis was normal with 20 bivalents^{4, 5}

27.Chromosome distribution at anaphase I:

28. Genetic diversity:

Chromosomal level

DNA level

29.Any other information: 86% pollen fertility⁵