Genus Datasheet

DatasheetNo. A-377.009 **DBT- Network Programme**
(Family.Genus)

1. Genus:*Barleria* L.

2. Systematic Position:

APG IV (2016)

- Kingdom: Plantae
- Clade: Angiosperms
- Clade: Eudicot
- Clade: Asterids
- Order: LamialesBromhead
- Family: Acanthaceae Juss.
- Genus: *Barleria*L.

Bentham and Hooker(1862)
Kingdom: Plantae
Division: Phanerogamia
Class: Dicotyledons
Subclass: Gamopetalae
Series: Bicarpellatae
Cohors: Personales
Ordo: Acanthaceae Juss.
Genus: *Barleria*L.

3. Species:

Global:253

India: 28

4. Taxonomic riddles:

5. Distribution:

Global: China, India, Myanmar, Philippines, Thailand, Nepal and Pakistan,Madagascar, Puerto Rico, Jamaica,Antigua, Dominica, Martinique, St. Lucia, St. Vincent, Barbados, Trinidad, Vietnam,Sri Lanka,Burma, Indo-China, Bangladesh,Egypt, Oman, Saudi Arabia, Yemen, Ethiopia, Kenya, Sudan, SomaliaDjibouti.

India: Peninsular India, North-East India, Rajasthan and Jammu and Kashmir

6. Habit and Habitat: Herbs or shrubs. Grows inrocky localities and dry hill-slopes. Some species are member ofevergreen forests while other are found inscrub forests and deciduous forests.

7. Economic Importance: Ornamental, Medicinal.

8. DNA content range:

Methodology:

2C

4C

9.Basic chromosome number(s):x=20[4,]

10. Zygotic chromosome number (s):2n=24[6], 2n=32[20],2n=40[2, 4, 5, 16], 2n=42[14], 2n=44[10], 2n=

11. Gametic chromosome number (s):n=20[4, 5, 22], n=22[10], n=16[20]

12. Specialized chromosomes (B chromosomes/Sex chromosomes/Polytenechromosomes/ Neoc chromosomes):

13. Ploidy level: Diploid[4, 5, 10]

14. Nature of polyploidy (auto, segmental, allo, autoallo):

15. Aberrant chromosome number(s) (aneuploidy, aneusomaty, polysomaty):

16.Karyograms: Meiosis: 20II. Normal[4, 5, 10]

17. Banding pattern(s):

18. Physical mapping of chromosomes: GISH:

19. Phylogenetic relationship atChromosomal; DNA level: Chromosomal level[4, 10]

DNA level[21]

20. Cytogenetic mechanism (s) underlying evolution: Cytological supports the separation of sized chromosomes) from Bentham and Hooker's Justicieae as done by Lindau and Bremek andKrishnappa, 1990). The diploid chromoeome number ranges from 2n=24 in *Barleria no* in *Barleria grandiflora*, but most of the species exhibit 2n=40 somatic chromosome num associations have been observed in *Barleria courtallica* and it is suggested to be an autopol Mathew 1991). The use of fluorescence in situ hybridization (FISH) would be useful to prov karyotype evolution in *Barleria* as the majority of the species have similar karyotype chromosomes, symmetrical karyotypes).

22. Any other information: Pollen fertility was reported in some species of *Barleria* ranges f *courtallica* (a species showing multivalent association) to 86% in *I* and Mathew 1991). The presence of a pair of heteromorphic chromo in *B. involucrata* var. *elata*and showing longest chromosomes compared to other species studied (Ranganath andKrishnappa, 1990)