Genus Datasheet CalU+SUK-Phase I

Datasheet No. A-097.002 **DBT- Network Programme**
(Family.Genus)

1. Genus:*Luzula*DC.

2. Systematic position:

APG IV (2016)

- Kingdom: Plantae
- Clade: Angiosperms
- Clade: Monocots
- Order: Poales Small
- Family: Juncaceae Juss.
- Genus:*Luzula* DC.

Bentham and Hooker (1862)

- Kingdom: Plantae
- Division: Phanerogamia
- Class: Monocotyledones
- Series: Calycineae
- Ordo: Juncaceae Juss.
- Genus:*Luzula* DC.

3. Species:

Global: 145

India:9

4. Taxonomic riddles:

5. Distribution:

Global: Cosmopolitan

India: Jammu and Kashmir, Himachal Pradesh, Punjab, Uttarakhand, Uttar Pradesh, West Bengal, Arunachal Pradesh, Sikkim, Meghalaya, Manipur, Nagaland, Tamil Nadu, West Himalaya

6. Habit and Habitat: Herb; found in forests on slopes, thickets, bamboo groves, wet riversides and trail sides

7.Economic Importance: Used as food and medicine

8. DNA content range:	**Methodology**
2C (0.82 – 3.034 pg)[9,20]	Flow cytometry[9,20]
4C (5.89 – 7.77 pg)[1]	Feulgen cytophotometry[1]

9. Basic chromosome number(s):

10. Zygotic chromosome number(s):2n=12[1,2,3,4,5,6,7,8,9,13,25];

2n=14[25];2n=24[1,3,4,6,10,11,12,13,14,15,20,23,25,26,27];2n=30[5]; 2n=36[3,4,6,8,9,13,16,17,18,19,21,28]; 2n=42[20]; 2n=46[24]

11. Gametic chromosome number(s):n=6[7,8,25]; n=12[10,29]; n=18[8]

12. Specialized chromosomes (B chromosomes/Sex chromosomes/Polytene Chromosomes/ Neocentric chromosomes):

13. Ploidy level: Diploid[9]; hexaploid[9]; polyploid[20]

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

15. Aberrant chromosome number(s) (aneuploidy, aneusomaty, polysomaty): Aneuplo numbers with 2n=35, 2n=40, 2n=41, 2n=44, 2n=45, 2n=46, 2n=47, 2n=49, 2n=50, 2n=79[20]

16. Karyograms: **Meiosis:**

17. Banding pattern(s): In *L. multiflora*, many chromosomes had three C-positive regions -one one near middle; other chromosomes had two C-positive regions -one on either chromoso chromosomes had a single large C-band located at one end of the chromosomes[16]

18. Physical mapping of chromosomes:GISH:

19.Phylogenetic relationship atChromosomal; DNAlevel: DNA level[9,30,31]

20. Cytogenetic mechanism (s) underlying evolution: The chromosomal rearrangements and almost certainlyoccurred during the evolution of many species of *Luzula*. However, one group is proposed to have arisen by means of chromosome fragmentationor agmatoploidy, prob polycentric nature of *Luzula* chromosomes[16]

21. Linkage map:

22. Any other information: Total number of species with reports = 6/9