Genus Datasheet

Datasheet No. A-074.001 (Family.Genus)

DBT- Network Programme

1. Genus: *Drimia* Jacq.

2. Systematic Position:

APG IV (2016)

- Kingdom: Plantae
- Clade: Angiosperms
- Clade: Monocots
- Order: Asparagales Link
- Family: Asparagaceae Juss.
- Subfamily: Scilloideae Burnett
- Genus: *Drimia* Jacq.

Bentham and Hooker (1862)
Kingdom: Plantae
Division: Phanerogamia
Class: Monocotyledones
Series: Coronarieae
Ordo: Liliaceae Juss.
Genus: *Drimia* Jacq.

3. Species:

Global: ~100 species

India: 9 species

4. Taxonomic riddles: Yes [2, 14, 15, 16, 21, 29, 32, 33, 37]

5. Distribution:

Global: Tropical and South Africa, Madagascar, India, China, Nepal, Pakistan, Sri Lanka, Myanmar, Vietnam

India: Andhra Pradesh, East Himalaya, Karnataka, Kerala, Maharashtra, Orissa, Rajasthan, Tamil Nadu, West Himalaya

6. Habit and Habitat: Bulbous geophytes; Tropical Dry Forest, Common in seasonally dry or semi-arid regions.

7. Economic Importance: *D. indica* commonly called as 'Indian squill' has long history of medicinal use. Bufadienolides found in squills are reported as cardioactive compounds. Bufadienolides show wide range of biological activities in addition to their use in cardiac dysfunction. It also used as expectorant, stimulant, cathartic and emetic. Other properties include antifungal, antibacterial, antihelminthic etc.

8. DNA content range:

C- value	**Methodology:**
2C (20.41- 40.80 pg) [1, 2]	Flow Cytometry [1, 2]
2C (23.38 pg) [1]	
4C (16.84 pg) [3]	Feulgen staining [3]

9 .Basic chromosome number(s): x= 5 [41]

x= 10 [25, 42]

10. Zygotic chromosome number(s): 2n= 18 [35]

2n= 20 [1, 2, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 29, 3

2n= 22 [8]

2n= 30 [2, 8, 9, 11, 12, 21, 27, 28, 29]

2n= 40 [9, 12, 14, 16, 28, 31, 39, 40]

2n= 60 [28, 32]

11. Gametic chromosome number(s): n= 10 [10, 13, 14, 15, 18, 19, 25, 28]

n= 20 [10, 14, 28]

12. Specialized chromosomes (B chromosomes/Sex chromosomes/Polytene chromosomes/ N
chromosomes): B chromosomes (1) [35]; (1- 3) [16]; (3) [15]; (6) [3, 13, 32]; (1- 7) [7]; (6- 7) [9]; (7) [21]; (1

13. Ploidy level: Diploid [1, 2, 5, 9, 13, 14, 15, 16, 18, 19, 20, 21, 25, 29, 34]

Triploid [2, 9, 21, 27, 28, 29]

Tetraploid [1, 2, 3, 7, 9, 12, 14, 16, 21, 28, 29]

Hexaploid [28, 32]

14. Nature of polyploidy (auto, segmental, allo, autoallo): Autotetraploid [14, 28]; segmental po

15. Aberrant chromosome number(s) (aneuploidy, aneusomaty, polysomaty): Varying chron
2n= 21 [5], 2n= 22 [5], 2n= 23 [5], 2n= 24 [5, 16]; 2n= 28[16], 2n= 32[16], 2n= 34[16], 2n= 36[16], 2n= 38[16], 2r
Polysomaty [3]

16. Karyograms: [2, 5, 13, 14, 15, 18, 21, 25, 28, 31, 32, 37] **Meiosis:** [13, 14, 15, 18

17. Banding pattern(s): Fluorescent banding by CMA/ DAPI staining [2]

18. Physical mapping of chromosomes: **GISH:**

19. Phylogenetic relationship at Chromosomal/ DNA level: Chromosomal level [2, 16]

21. Linkage map:

22. Any other information: