

Genus Datasheet

Datasheet No. A-078.010
(family,genus,species)

DBT- Network Programme

1. Genus: *Murdannia* Royle

2. Systematic position:

APG IV (2016)

- Kingdom: Plantae
- Clade: Angiosperms
- Clade: Monocots
- Clade: Commelinids
- Order: Commelinales Mirb. ex Bercht. & J. Presl
- Family: Commelinaceae Mirb.
- Genus: *Murdannia* Royle

Bentham and Hooker (1862)

Kingdom: Plantae
Division: Phanerogamia
Class: Monocotyledones
Series: Coronarieae
Ordo: Commelinaceae Mirb.
Genus: *Murdannia* Royle

3. Species:

Global: 53

India: 27

4. Taxonomic riddles:

5. Distribution:

Global: Africa, Ethiopia, Brazil Northeast, China, Japan, Korea, India, Thailand, Queensland, Vietnam

India: Assam, Andhra Pradesh, Andaman Islands, Kerala, Maharashtra, West Himalaya, Manipur, Nicobar Islands, Tamil Nadu.

6. Habit and Habitat: Herb. Common along roadside, ditches, rocky outcrops with pools marshy and swampy areas, open flats, stream margins, waste lands, in cultivation fields, full sun to partial shade

7. Economic Importance: *M. dimorpha* root paste with goat milk is prescribed orally to cure asthma; *M. spirata* leaves poultice relieves burns, itches, wounds.

8. DNA content range:

2C:

4C:

Methodology

9. Basic chromosome number(s): $x=4^{12,6^3,12,9^3,10^3,11^3}$

10. Zygotic chromosome

number(s): $2n=12^{3,15,17,14,27,18,1,9,27,29,20,1,2,3,5,7,10,11,12,13,14,15,17,18,19,20,21,22,23,24,27,36,37,40,42,2,7,14,15,16,24,1,3,15,28,15,18,41,30,15,27,32,38,35,25,39,15,25,40,1,6,7,8,12,13,15,17,18}$

11. Gametic chromosome

number(s): $n=6^{2,3,4,15,7,27,9,2,9,27,10,1,2,3,4,7,12,15,20,21,23,24,27,42,1,3,7,15,25,31,1,2,3,15,15,22,20,1,2,3,4,6,8,9,12,14,15,18,24,27,31,32,34,41,2,1,3,9,22,1,3,15,30,3,6,7,15,25,26,27,31,32,40,3,7,15}$

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

13. Ploidy level: Diploid^{12,21} Triploid^{14,22} Tetraploid³⁰

14. Nature of polyploidy (auto, segmental, allo, autoallo): Intraspecific polyploidy^{2,3,15,27}, Euploidy²

15. Aberrant chromosome number(s) (aneuploidy, aneusomy, polysomy): Aneuploidy^{3,15,27}

16. Karyograms:

Meiosis:

17. Banding pattern(s):

18. Physical mapping of chromosomes:GISH:

19. Phylogenetic relationship at Chromosomal; DNA level:

20. Cytogenetic mechanism (s) underlying evolution: Polyploidy⁸, Aneuploidy¹²

21. Linkage map:

22. Any other information: