

Genus Datasheet

Datasheet No. A-030.004
(Family.Genus)

DBT- Network Programme

1. Genus: *Sagittaria* L.

2. Systematic Position:
APG IV (2016)

- Kingdom: Plantae
- Clade: Angiosperms
- Clade: Monocots
- Order: Alismatales R. Br. ex Bercht. & J. Presl
- Family: Alismataceae Vent.
- Genus: *Sagittaria* L.

Bentham and Hooker (1862)

Kingdom: Plantae
Division: Phanerogamia
Class: Monocotyledones
Series: Apocarpae
Ordo: Alismaceae
Genus: *Sagittaria* L.

3. Species:

Global: ~40

India: 5

4. Taxonomic riddles:

5. Distribution:

Global: Widely distributed in North America, South America, Europe and Asia. Also found in some countries of tropical Africa.

India: Throughout India

6. Habit and Habitat: Aquatic or marshy herb, It grows in deep, mesotrophic to eutrophic, slow flowing or standing rivers, canals or ditches.

7. Economic Importance: Ornamental plant, food and some has medicinal properties

8. DNA content range:

1C (21.3pg)³⁴

2C (42.5pg)³⁴

4C (85.0pg)³⁴

Methodology

flow cytometry³⁴

9. Basic chromosome number(s): $x = 11$ ^{1,12}

$x = 11(10)$ ⁶⁸

10. Zygotic chromosome number(s):

$2n=22$ ^{1,2,3,4,5,6,7,8,9,10,11,12,13,14,17,18,20,21,22,23,24,26,27,28,29,30,35,37,38,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63,64,65,71,72}

$2n=16$ ³⁹

$2n=18, 36, 54$ ³⁶

$2n=20$ ⁴⁰⁻⁴²

$2n=21$ ^{41,42}

11. Gametic chromosome number(s): $n=11$ ^{1,5,12,14,19,25,26,35,56,71}

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

13. Ploidy level: Diploid ^{1, 8,12, 35}

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

15. Aberrant chromosome number(s) (aneuploidy, aneusomaty, polysomaty): $2n=20$ ³⁵

16. Karyograms: ^{1, 8,12, 23, 35,46,52}

Meiosis: ^{1, 5,12,14,19,25}

17. Banding pattern(s):

18. Physical mapping of chromosomes: GISH:

19. Phylogenetic relationship at Chromosomal; DNA level: Chromosome level ³⁵

DNA level ^{66,67,69,70}

20. Cytogenetic mechanism (s) underlying evolution: Inconsistency in somatic complement ³⁴

21. Linkage map: ¹⁵

22. Any other information: