Species Data Sheet

Datasheet No. A-078.008.001
(family.genus.species)

DBT- Network Programme

1.Taxon:*Tradescantia* L.
Species: *Tradescantia spathacea*(Sw.) Stearn
Subspecies
Variety
Cultivar
Hybrid
Image file

2. Synonyms:*Ephemerum bicolor* Moench, *Rhoeo discolor* (L'Hér.) Hance,*Rhoeospathacea*(Sw.) Stearn,*Rhoeospathacea f. concolor* (Baker) Stehlé,*Rhoeospathacea f. variegata*(Hook.) Stehlé,*Tradescantiadiscolor* L'Hér.,*Tradescantia discolor* var. *concolor* Baker,*Tradescantia discolor* var. *variegata* Hook.,*Tradescantia discolor* var. *vittata* Regel,*Tradescantiaodoratissima* E.J.Lowe & W.Howard,*Tradescantia versicolor* Salisb.

3.Systematic Position: APG IV; Bentham and Hooker:

APG IV (2016)
- Kingdom: Plantae
- Clade: Angiosperms
- Clade: Monocots
- Order: CommelinalesMirb. ex Bercht. & J. Presl
- Family: CommelinaceaeMirb.
- Genus: *Tradescantia* L.
- Species: *Tradescantia spathacea* Sw.

Bentham and Hooker (1862)
Kingdom: Plantae
Division:Phanerogamia
Class: Monocotyledones
Series: Coronarieae
Family: CommelinaceaeMirb.
Genus: *Tradescantia*L.
Species: *Tradescantia spathacea* Sw.

4.Distribution:

Global: Cosmopolitan

India: Andhra Pradesh, Daman and Diu, Karnataka, Kerala, Maharashtra, Madhya Pradesh, North East India, Orissa, Pondicherry, Rajasthan, Tamil Nadu, Uttar Pradesh.

5.Indigenous/Exotic/Endemic;Cultivated/Wild: Indigenous

6.Threat Status:
IUCN

BSI

7.Habit and Habitat: Perennial or annual herbs; many of the species naturalized as weed in crop fields, but few are typically found in forests.

8.Life Form: Perennial or annual

9.Economic Importance:*T. spathacea* is an economically important plant in the nursery and landscape trade. Several cultivars are extensively commercialized as ornamentals and houseplants in tropical and temperate regions.

10. Probable Progenitor of:

11.DNA

C-valueMethodology: 15.5pg (flow cytometry with the fluorochrome propidium iodide)[45]

12.Basic chromosome number(s):x=6[9]

13. Zygotic chromosome number(s):

2n=12[2,3,5,6,7,8,9,10,11,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,36,39,40,43,44,46]

13[7]18[4,23,30,34,35]24[25,39]

14. Gametic chromosome number(s):n=6[1,13,19,21,22,31,36,39]12[11,25]

15.Specialized chromosomes (B chromosomes/Sex chromosomes/polytene chromosomes/Neocentric chromosomes):

16.Ploidy level: Diploid[4,18,21,22,23,28,30,33,35,36,46]Triploid[4,23,28,30,34,35]Tetraploid[21,25,28,33,39]

17.Agametoploidy:

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

(Autotriploid[4,23,28,30,34,35]; Autotetraploid[21,28,39]; Inducedtetraploid[18,25])

19.Genomic formula:

20.Aberrant chromosome number(s)(aneuploidy, aneusomaty, polysomaty): Aneuploid[39]

21.Somatic chromosomes:

Karyotype: Mostly Metacentric and Submetacentric[37,40]

Chromosome size: Large size[37]

NOR chromosome(s):2NOR[36,37]

Degree of asymmetry: Asymmetrical[37]

22. Banding pattern(s):Q-banding[17]C-banding[3,31,43]

23. Physical mapping of chromosomes:

In situ hybridization

Fluorescent in situ hybridization: FISHusing25S rDNA, 5S rDNA[42,43]

24.Genomic in situ hybridization

25. Linkage map:

26.Chromosome associations:

Female meiosis:

Male meiosis:(Ring configuration:ring of 12[4,16,17,18,19,27,28,46]; 11+1[28];10+2[28];8+4[28];7+5[18,28]),12II[25]

27.Chromosome distribution at anaphase I:(In diploids6:6[18,34,35,40], 7:5[18,40]; In triploids8:10[35]; In tetraploids12:12[25])

28. Genetic diversity:

Chromosomal level:

DNA level:

29.Any other information (Apomixis; Inversion; Male sterility;Pollen grain mitosis; Pollen stainability;Translocations etc):

Complex translocation heterozygotes[4,16,17,18,19,27,28,33,34,35,40,41,42,43,46]