

Species Datasheet

Datasheet No. A-032.004.001
(family.genus.species)

DBT- Networ

1.Taxon:

Species:*Hydrilla verticillata* (L.f.) Royle

Subspecies:

Variety:

Cultivar:

Hybrid:

Image file

2. Synonyms:*Elodea verticillata* (L.f.) F.Muell., *Epigynanthus blumei* Hassk., *Hydoralithuanica* (Rchb.) Besser, *Hydrilla angustifolia* Hassk., *H. dentata* Casp., *H. dentata* var. *pomeranica* (Rchb.) Casp., *H. lithuanica* (Rchb.) Dandy, *H. najadifolia* Zoll. & Moritzi, *H. ovalifolia* Rich., *H. polysperma* Blatt., *H. roxburghii* Steud., *H. subulata* Royle, *H. verticillata* var. *brevifolia* Casp., *H. verticillata* var. *crispa* Casp., *H. verticillata* var. *roxburghii* Casp., *H. verticillata* var. *tenuis* Casp., *H. verticillata* var. *verticillata*, *H. wightii* Planch., *Hydrospodylus submersus* Hassk., *Ixia aquatica* Muhl. ex Spreng., *Serpicula verticillata* L.f., *Udoralithuanica* Rchb., *U. lithuanica* Andr. ex Besser, *U. occidentalis* W.D.J.Koch, *U. pomeranica* Rchb., *U. verticillata* (L.f.) Spreng., *Vallisneria verticillata* (L.f.) Roxb.

3.Systematic position:

APG IV (2016)

- Kingdom: Plantae
- Clade: Angiosperms
- Clade: Monocots
- Order: Alismatales R. Br. ex Bercht. & J. Presl
- Family: Hydrocharitaceae Juss.
- Genus: *Hydrilla* Rich.
- Species: *H. verticillata* (L.f.) Royle

Bentham and Hooker (1862)

Kingdom: Plantae
Division: Phanerogamia
Class: Monocotyledones
Series: Microspermae
Ordo: Hydrocharideae
Genus: *Hydrilla* Rich.
Species: *H. verticillata* (L.f.) Royle

4.Distribution:

Global: East Europe to Asia, Uganda to North Zambia

India: Throughout India

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

6.Threat Status:

IUCN: Least Concern

BSI:

7.Habit and Habitat:Aquatic Herb.Common in lakes, swamps, ponds, rivers and irrigation ditches in standing or slowly flowing water

8.Life Form:Hydrophytes

9.Economic Importance:Dried powder of plant is used as detergent in the treatment of abscesses, burns and wounds. Also used in aquarium

10. Probable Progenitor of:

11.DNA

C-value

Methodology:

12. Basic chromosome number(s):

13. Zygotic chromosome number(s): $2n=16^{1,2,3,5,6,7,8,9,10,12,13,15,17}$ $24^{1,3,4,5,11,12,16,18}$ $32^{9,10,14}$

14. Gametic chromosome number(s):

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

Image file

16. Ploidy level:

Image file

17. Agametoploidy:

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

19. Genomic formula:

20. Aberrant chromosome number(s) (aneuploidy, aneusomaty, polysomaty):

21. Somatic chromosomes:

Karyotype: Mostly Sub metacentric^{5,19}

Chromosome size: Long chromosome¹⁹

NOR chromosome(s): 4NOR¹⁹

Degree of asymmetry: Asymmetrical¹⁹

Image file

22. Banding pattern(s):

Image file

23. Physical mapping of chromosomes:

In situ hybridization

Image file

Fluorescent in situ hybridization

Image file

24. Genomic in situ hybridization:

Image file

25. Linkage map:

Image file

26. Chromosome associations:

Female meiosis:

Male meiosis:

Image file

27. Chromosome distribution at anaphase I:

28. Genetic diversity:

Chromosomal level:

Image file

DNA level

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