Species Datasheet

Datasheet No. A-030.004.006 **DBT- Ne**
(family.genus.species)

1. Taxon:

Species: *Sagittaria trifolia* L.
Subspecies
Variety
Cultivar
Hybrid

Image file

2. Synonyms: *Sagittaria chinensis* Sims, *S. doniana* Sweet, *S. edulis* Schltdl., *S. hastata* D.Don, *S, hirundinacea* Blume, *S, japonica* H.Vilm., *S. leucopetala* (Miq.) Bergmans, *S. macrophylla* Bunge, *S. obtusa* Thunb., *S. sagittata* Thunb., *S. sagittifolia* var. *alismifolia* Makino, *S. sagittifolia* var. *diversifolia* M.Michel, *S. sagittifolia* var. *edulis* (Schltdl.) Siebold ex Miq., *S. sagittifolia* var. *leucopetala* Miq., *S. sagittifolia* subsp. *leucopetala* (Miq.) Hartog, *S. sagittifolia* var. *longiloba* Turcz., *S. sagittifolia* f. *sinensis* (Sims) Makino, *S. sagittifolia* var. *subaequilonga* Regel, *S. sinensis* Sims, *S. trifolia* f. *albida* Makino, *S. trifolia* var. *angustifolia* Kitag., *S. trifolia* f. *caerulea* Makino, *S. trifolia* var. *edulis* (Schltdl.) Ohwi ex W.T.Lee, *S. trifolia* f. *heterophylla* Makino, *S. trifolia* var. *leucopetala* Miq., *S. trifolia* subsp. *leucopetala* (Miq.) Q.F.Wang, *S. trifolia* var. *longiloba* (Turcz.) Kitag., *S. trifolia* f. *longiloba* (Turcz.) Makino, *S. trifolia* var. *retusa* J.K.Chen, X.Z.Sun & H.Q.Wang, *S. trifolia* var. *sinensis* (Sims) Makino, *S. trifolia* f. *subhastata* Makino, *S. trifolia* f. *suitensis* Makino, *S. trifolia* f. *tenuissima* Hand.-Mazz., *S. trifolia* var. *trifolia*

3. 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.
- Species: *S. trifolia* L.

Bentham and Hooker (1862)
Kingdom: Plantae
Division: Phanerogamia
Class: Monocotyledones
Series: Apocarpae
Ordo: Alismaceae
Genus: *Sagittaria* L.
Species: *S. trifolia* L.

4. Distribution:

Global: Afghanistan, Borneo, China, Chita, Fiji.Hainan, India, Iran, Iraq, Japan, Jawa, Kazakhstan, Khabarovsk, Kirgizistan, Korea,Krasnoyarsk, Laos, Myanmar, Malaya, Malesia, Manchuria, Mongolia,Nepal, Nicobar Island, North Caucasus, Pakistan, Philippines,Primorye, Russian, Siberia Buryatiya, South European Russia, Sulawesi, Sumatera, Tadzhikistan, Taiwan, Thailand, Ukraine, Uzbekistan, Vietnam

India: Assam, East Himalaya, Gujarat, Maharashtra, Karnataka, Kerala

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

6. Threat Status:

IUCN: Least Concern
BSI:

7. Habit and Habitat: Aquatic Herb, grows in temperate regions

8. Life Form: Hydrophytes

9. Economic Importance: Tubers used as food, similar to potato, has some medicinal properties like, antiscorbutic, diuretic, etc.

10. Probable Progenitor of:

11.DNA

C-value **Methodology**

12.Basic chromosome number(s): x=

13. Zygotic chromosome number(s): 2n=22 [4,17,18,20,21,22,23,24,26,27,28,29,30,64]

14. Gametic chromosome number(s): n=11[19,25,26]

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: majority subtelocentric chromosomes [23]

Chromosome size:

NOR chromosome(s)

Degree of asymmetry

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 [31, 32,33]

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