

Species Datasheet

Datasheet No. A-030.001.001
(family.genus.species)

DBT- Ne

1. Taxon:

Species: *Alisma gramineum* Lej.

Subspecies

Variety

Cultivar

Hybrid

Image file

Commonly known as narrowleaf water-plantain, ribbonleaf water-plantain or ribbon-leaved water-plantain, and grass-leaved water-plantain

2. Synonyms: *Alisma arcuatum* Michalet, *A. arcuatum* var. *angustissimum* (DC.) Lunell, *A. arcuatum* var. *graminifolium* (Wahlenb.) Casp., *A. arcuatum* var. *lanceolatum* (Buchenau) Lunell, *A. arcuatum* var. *pumilum* Prahll, *A. geyeri* Torr., *A. geyeri* var. *angustissimum* Lunell, *A. geyeri* var. *giganteum* Lunell, *A. geyeri* var. *pumilum* (Prahll) Lunell, *A. gramineum* f. *aestuosum* (Bolle) Soó, *A. gramineum* var. *angustissimum* (DC.) Hendricks, *A. gramineum* f. *arcuatum* (Michalet) Tournay & Lawalrée, *A. gramineum* var. *geyeri* (Torr.) Sam., *A. gramineum* var. *graminifolium* (Wahlenb.) Hendricks, *A. graminifolium* (Wahlenb.) Ehrh. ex Ledeb., *A. graminifolium* f. *angustissimum* (DC.) Glück, *A. graminifolium* f. *pumilum* (Nolte ex Sond.) Glück, *A. graminifolium* f. *semimersum* Glück, *A. graminifolium* f. *strictum* Glück, *A. graminifolium* f. *terrestre* Glück, *A. loeselii* Gorski, *A. loeselii* Gorski ex Juzep., *A. plantago* var. *angustissimum* DC., *A. plantago-aquatica* f. *aestuosum* Bolle, *A. plantago-aquatica* var. *angustissimum* DC., *A. plantago-aquatica* f. *angustissimum* (DC.) Asch. & Graebn., *A. plantago-aquatica* subsp. *arcuatum* (Michalet) Nyman, *A. plantago-aquatica* var. *arcuatum* (Michalet) Buchenau, *A. plantago-aquatica* var. *decumbens* Boiss., *A. plantago-aquatica* var. *graminifolium* Wahlenb., *A. plantago-aquatica* subsp. *graminifolium* (Wahlenb.) Hegi, *A. plantago-aquatica* f. *lanceolatum* Buchenau, *A. plantago-aquatica* var. *micropetalum* Celak., *A. plantago-aquatica* f. *micropetalum* (Celak.) Buchenau, *A. plantago-aquatica* var. *pumilum* Nolte ex Sond., *A. plantago-aquatica* var. *terrestre* (Glück) Hegi, *A. validum* Greene

3. Systematic Position:

APG IV (2016)

- Kingdom: Plantae
- Clade: Angiosperms
- Clade: Monocots
- Order: Alismatales R. Br. ex Bercht. & J. Presl
- Family: Alismataceae Vent.
- Subfamily: Amaryllidoideae Burnett
- Genus: *Alisma* L.
- Species: *Alisma gramineum* Lej.

Bentham and Hooker (1862)

Kingdom: Plantae
Division: Phanerogamia
Class: Monocotyledones
Series: Apocarpae
Ordo: Alismaceae
Genus: *Alisma* L.
Species: *Alisma gramineum* Lej.

4. Distribution:

Global: Africa, Asia-Temperate, China, Kazakhstan, Tadzhikistan, Uzbekistan, Mongolia, Russia, Siberia, Afghanistan, Iran, Turkey, India, Pakistan, Europe, North America
India: West Himalaya

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

6. Threat Status:

IUCN: Data Deficient
BSI:

7. Habit and Habitat: Herb; Temperate Mixed Forest, marshy areas along shorelines, occasionally completely submerged.

8. Life Form: Hydrophytes

9. Economic Importance: Historical medicinal use, food and habitat for waterfowl, fish and wild life.

10. Probable Progenitor of:

11.DNA

C-value Methodology

12.Basic chromosome number(s): $x=7$ 1,8,9

13. Zygotic chromosome number(s): $2n=14^{1,9,10,11,12,13,14,15,16}$, $2n=16^2$

14. Gametic chromosome number(s): $n=7^1$

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

Image file

16. Ploidy level: Diploid^{1,9}

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 metacentric chromosomes¹

Chromosome size: Small to medium¹

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: 7 II^1

Image file

27. Chromosome distribution at anaphase I: Normal¹

28. Genetic diversity:

Chromosomal level

Image file

DNA level:⁷³

29. Any other information (Apomixis ; Inversion; Male sterility; Pollen grain mitosis; Pollen stainability; Translocations etc): Pollen stainability -100 %¹