

Species Datasheet

Datasheet No. A-073.002.008
(family.genus.species)

DBT- Network Programme

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1. Taxon:

Species *Allium carolinianum* DC.

Subspecies

Variety

Cultivar

Hybrid

Image file

2. Synonyms: *Allium aitchisonii* Boiss., *A. aitchisonii* Baker, *A. obtusifolium* Klotzsch *A. platyspathum* var. *falcatum* Regel, *A. platystylum* Regel, *A. polyphyllum* Kar. & Kir., *A. polyphyllum* var. *nudicaule* Regel, *A. thomsonii* Baker

3. Systematic Position:

APG IV (2016)

- Kingdom: Plantae
- Clade: Angiosperms
- Clade: Monocots
- Order: Asparagales Link
- Family: Amaryllidaceae J. St.-Hil.
- Subfamily: Allioideae Herb.
- Genus: *Allium* L.
- Species: *A. carolinianum* DC.

Bentham and Hooker (1862)

Kingdom: Plantae
Division: Phanerogamia
Class: Monocotyledones
Series: Coronarieae
Ordo: Liliaceae Juss.
Genus: *Allium* L.
Species: *A. carolinianum* DC.

4. Distribution:

Global: Afghanistan, Bhutan, China, East Himalaya, India, Kazakhstan, Kirgizstan, Nepal, Pakistan, Tadzhikistan, Tibet, Uzbekistan, West Himalaya, Xinjiang

India: Jammu and Kashmir, Himachal Pradesh, Uttaranchal

5. Indigenous/Exotic/ Endemic; Cultivated/Wild: Wild, occasionally cultivated

6. Threat Status:

IUCN: Not been assessed yet

BSI:

7. Habit and Habitat: Herbaceous; Temperate, gregarious on dry, shady rocks or on alpine steppe between 2700 m and 4200 m altitude

8. Life Form: Bulbous geophyte.

9. Economic Importance: Condiment

10. Probable Progenitor of:

11. DNA

C- value

2C (26.45 pg)^{3,4}

4C (52.90±0.63 pg)^{3,4}

Methodology

Feulgen cytophotometry^{3,4}

12. Basic chromosome number(s): $x=8^{103}$

13. Zygotic chromosome number(s): $2n=16^{3,4,103,108,109}$

$2n=32^{6,9,10,12,13,14,17,110,111,112}$

14. Gametic chromosome number(s): $n=16^{113}$

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

Image file

16. Ploidy level: Diploid^{3,4}, Tetraploid^{6,12,111,112}

Image file

17. Agametoploidy

18. Nature of polyploidy (auto, segmental, allo, autoallo): Allotetraploid⁶, Autotetraploid^{12,112}

19. Genomic formula:

20. Aberrant chromosome number(s) (aneuploidy, aneusomy, polysomy):

21. Somatic chromosomes:

Karyotype Majority metacentric chromosomes^{6,12,103,108,111,112}

Chromosome size Medium to large^{6,12,111,112}

NOR chromosome(s) 2 NOR^{6,12,103,112}, 4 NOR¹¹¹

Degree of asymmetry: Asymmetrical^{6,12,103,111,112}

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 16 II¹¹³

Image file

27. Chromosome distribution at anaphase I: Chromosomal bridges and laggards¹¹³

28. Genetic diversity:

Chromosomal level

Image file

DNA level

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