

Species Datasheet

Datasheet No. G-011.006.009
(family.genus.species)

1.Taxon:

Species: *Cupressus torulosa* D. Don

Subspecies:

Variety:

Cultivar:

Hybrid:

Image file

2. Synonyms: *Athrotaxis joucadan* Carriere, *Cupressus austrotibetica* Silba, *C. corneyana* Knight & Perry ex Carriere, *C. doniana* Hook.f., *C. duclouxiana* subsp. *austrotibetica* (Silba) Silba, *C. flagelliformis* Knight, *C. gigantea* subsp. *ludlowii* (Silba) Silba, *C. gigantea* subsp. *tongmaiensis* (Silba) Silba, *C. karnaliensis* Silba, *C. karnaliensis* var. *mustangensis* Silba, *C. karnaliensis* subsp. *mustangensis* (Silba) Silba, *C. lusitanica* subsp. *kuluensis* Silba, *C. lusitanica* subsp. *torulosa* (D.Don) Silba & Brian Chen, *C. majestica* Knight, *C. nepalensis* Loudon, *C. pakistanensis* Silba, *C. sempervirens* var. *indica* Parl., *C. sempervirens* subsp. *indica* (Parl.) Silba, *C. tongmaiensis* Silba, *C. tongmaiensis* var. *ludlowii* Silba, *C. torulosa* subsp. *karnaliensis* (Silba) Silba, *C. tournefortii* Ten., *C. whitleyana* Carriere, *Juniperus gracilis* Carriere, *J. pendula* Parl., *Sabina corneyana* Antoine, *Thuja curviramea* Miq.

3.Systematic Position:

Christenhusz et al. (2011)

- Class: Equisetopsida C. Agardh
- Subclass: Pinidae Cronquist
- Order: Cupressales Link
- Family: Cupressaceae Gray
- Genus: *Cupressus* L.
- Species: *C. torulosa* D. Don

Bentham and Hooker (1862)

Kingdom: Plantae
Division: Phanerogamia
Class: Gymnospermeae
Ordo: Coniferae
Tribus: Cupressineae
Genus: *Cupressus* L.
Species: *C. torulosa* D. Don

4.Distribution:

Global: Native of Bhutan, China, India, Nepal

India: Arunachal Pradesh, Himachal Pradesh, Jammu-Kashmir, Sikkim, Uttarakhand, Western Himalayas

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

6.Threat Status:

IUCN: Least Concern

BSI:

7.Habit and Habitat: Large evergreen tree (45 m tall), found in the Himalaya, *C.torulosais* a codominant with *Juniperus* in the dry inner valleys and semi-arid high mountain environments towards the Tibetan side of the main range, where this open forest or woodland type occupies S-facing slopes. The altitudinal range is 1560-3670 m a.s.l.

8.LifeForm:Phanerophytes

9.EconomicImportance:The wood of this species is valued for many uses, primarily to do with its durability (rot resistance). Preferable to Deodar for internal work like window frames, ceilings, door-panels; also for railway sleepers, Wood is burnt as incense, traditionally it has been used for the construction of Buddhist temples and religious wood carving.

10. Probable Progenitor of:

11.DNA

C-value	Methodology
2C (24.62pg) ⁴	Flow cytometry ⁴

12.Basic chromosome number(s): $x=11^{5, 7}$

13. Zygotic chromosome number(s): $2n=22^7$

14. Gametic chromosome number(s): $n=11$ (endosperm mitosis)⁸

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

Image file

16.Ploidy level:Diploid^{7, 8}

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17. Agametoploidy:

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

19. Genomic formula:

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

21. Somatic chromosomes:⁷

Karyotype Median and submedian⁷

Chromosome size Large⁷

NOR chromosome(s) 2⁷

Degree of asymmetry Symmetrical⁷

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 11 II⁷

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; Translocation etc.):