

Species Datasheet

Datasheet No. G-011.005.001
(family.genus.species)

1.Taxon:

Species: *Cunninghamialanceolata*(Lamb.) Hook.

Subspecies:

Variety:

Cultivar:

Hybrid:

Image file

2. Synonyms:*Abies batavorum* Siebold ex Carriere, *A. lanceolata* (Lamb.) Poir.,*Belis jaculifolia* Salisb.,
B. lanceolata (Lamb.) Hoffmanns.,*Cunninghamia chinensis* de Vos, *C. jaculifolia* (Salisb.) Druce,
C. lanceolata var. *corticosa* Z.Y. Que& J.X. Li, *C. lanceolata* var. *lanceolata*,
C. lanceolata var. *unicanaliculata*(D.Y.Wang&H.L.Liu) Silba,
C. sinensis R.Br.,*C. sinensis* var. *prolifera* Lemée&H.Lev., *C. unicanaliculata* D.Y.Wang&H.L.Liu,
C. unicanaliculata var. *pyramidalis*D.Y.Wang&H.L.Liu, *Larix chinensis* Mill., *Pinus abies* Lour.,
P. lanceolata Lamb., *Raxopitys cunninghamii* J.Nelson

3.Systematic Position:

Christenhusz et al. (2011)

- Class: Equisetopsida C. Agardh
- Subclass: PinidaeCronquist
- Order: Cupressales Link
- Family:Cupressaceae Gray
- Genus: *Cunninghamia*R. Br. ex A. Rich.
- Species: *C. lanceolata*(Lamb.) Hook.

Bentham and Hooker (1862)

Kingdom: Plantae

Division: Phanerogamia

Class: Gymnospermeae

Ordo: Coniferae

4.Distribution:

Global:Cambodia, Laos, India, Mainland China, Vietnam,

India: Sikkim (Gangtok), Tamil Nadu, Uttarakhand (Dehradun)

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

6.Threat Status:

IUCN:Least concern

BSI:

7.Habit and Habitat:Evergreen tree (50 m tall), *C. lanceolata* to be a coniferous constituent of the Mixed Mesophytic Forest Formation of the warm temperate regions of China.

8.LifeForm:Phanerophytes

9.EconomicImportance:It is an attractive tree suitable for land scape,the wood is light, soft, fragrant, almost white, and durable. Large sizes are milled for construction timber in houses, for masts, carpentry and planks for coffins. Wood is termite proof; easily workable, used in building, construction of bridges, ships, lamp post, making furniture and for wood fibre.

10. Probable Progenitor of:

11.DNA

C-value	Methodology
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2C (27.12 pg) ¹⁴	Feulgenmicrodensitometry ¹⁴
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2C (28.34 pg) ⁶	Flow cytometry ⁶
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2C (25.5 pg) ¹⁹	Flow cytometry ¹⁹
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2C (39.60 pg) ¹⁹	Flow cytometry ¹⁹
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12.Basic chromosome number(s): $x=11$ ^{1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 22, 23, 24, 25}

13. Zygotic chromosome number(s): $2n=22$ ^{1, 2, 3, 4, 7, 8, 10, 11, 12, 13, 14, 15, 16, 17, 23, 24}

³³¹⁹

14. Gametic chromosome number(s): $n=11$ ^{5, 22, 25}

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

Image file

16.Ploidy level:Diploid^{1, 2, 3, 4, 5, 7, 8, 10, 11, 12, 13, 14, 15, 16, 17}

Triploid (sporadic)¹⁹

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:^{1, 2, 3, 4, 7, 8, 10, 11, 12, 13, 14, 15, 16, 17}

KaryotypeMostly median, one pair submedian^{1, 2, 3, 4, 7, 8, 10, 11, 12, 13, 14, 15, 16, 17, 23, 24}

Chromosome sizeLarge^{1, 2, 3, 4, 7, 8, 10, 11, 12, 13, 14, 15, 16, 17, 23, 24}

NOR chromosome(s)2^{5, 8, 23, 24}

Degree of asymmetryModerately asymmetrical^{1, 2, 3, 4, 7, 8, 10, 11, 12, 13, 14, 15, 16, 17, 23, 24}

Image file

22. Banding pattern(s):C bands¹¹, G bands¹⁵, HSAG¹⁶, CMA+²¹

Image file

23.Physical mapping of chromosomes:

In situ hybridization18SrDNA⁵, telomeric repeat Arabidopsis type²⁵

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 II 5, 22, 25

Image file

27. Chromosome distribution at anaphase I:

28. Genetic diversity:

Chromosomal level^{3, 12}

Image file

DNA level¹⁸

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