Species Datasheet

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Datasheet No. G-007.005.026
(family.genus.species)

1.Taxon:

Species: *Pinus wallichiana* A.B.Jacks.
Subspecies:
Variety:
Cultivar:
Hybrid:

Image file

2. Synonyms:*Leucopitys excelsa* Nieuwl., *Pinus chylla* Lodd., *P. dicksonii* Carriere, *P. excelsa* Wall. ex D.Don, *P. griffithii* McClell., *P. nepalensis* Chambray, *P. wallichiana* var. *manangensis* H.Ohba & M.Suzuki, *P. wallichiana* subsp. *manangensis* (H.Ohba & M.Suzuki) Silba

3. Systematic Position:

Christenhusz *et al.* (2011)

- Class: Equisetopsida C. Agardh
- Subclass: Pinidae Cronquist
- Order: Pinales Gorozh.
- Family: Pinaceae Spreng.
- Genus:*Pinus* L.
- Species: *P.wallichiana* A.B.Jacks.

Bentham and Hooker (1862)
Kingdom: Plantae
Division: Phanerogamia
Class: Gymnospermeae
Ordo: Coniferae
Tribus: Abietineae Eichler
Genus: *Pinus* L.
Species: *P. wallichiana* A.B.Jacks.

4.Distribution:

Global: Native to Afghanistan, Bhutan, China, India, Myanmar, Nepal and Pakistan

India: Temperate Himalaya

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

6.Threat Status:

IUCN: Least Concern

BSI:

7.Habit and Habitat: Evergreen Tree (30-50 m).*P. wallichiana* grows in the Himalayas in the valleys and foothills, to a maximum altitude of 2,700 m, but in Bhutan it reaches 3,400 m a.s.l. Sometimes it forms pure stands or forests, in other places it appears as an important forest component mixed with broad-leaved trees, e.g. species of the genera *Quercus, Acer* and *Ilex*. In the western Himalayas, where conditions are drier, *P. wallichiana* forms mixed forests with *Cedrus deodara*. Other conifers with which it may be associated are *Pinus roxburghii*, *Abies spectabilis*, or *A. densa* and *Tsuga dumosa* in the wetter eastern part of its range.

8.Life Form: Phanerophytes

9.Economic Importance: Himalayan White Pine is an important timber tree

10. Probable Progenitor of:

11.DNA

C-value	**Methodology**
2C (49.20 pg) [63]	Feulgen microdensitometry [63]
22C (51.78 pg) [90]	Flow cytometry [90]
2C (52.60 pg) [32]	Flow cytometry [32]
2C (59.30 pg) [96]	Flow cytometry [96]
2C (59.36 pg) [95]	Flow cytometry [95]

12.Basic chromosome number(s):x=12 [5, 35, 48, 49, 63, 74]

13. Zygotic chromosome number(s):2n=24[5, 48, 49, 63, 74]

14. Gametic chromosome number(s):n=

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

Image file

16.Ploidy level: Diploid [5, 48, 49, 63, 74]

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: 5, 48, 49, 74

Karyotype Median shortest pair submedian [5, 48, 49, 74]

Chromosome size Large [5, 48, 49, 74]

NOR chromosome(s) 20 (sites) [5]

Degree of asymmetry Symmetrical [5, 48, 49, 74]

Image file

22. Banding pattern(s):

Image file

23.Physical mapping of chromosomes:

In situ hybridization

Image file

Fluorescent in situ hybridization:18S rDNA, 5S rDNA [5]

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

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