

Species Datasheet

Datasheet No. G-007.005.016 DBT- Network Programme
(Family.genus.species)

1.Taxon:

Species: *Pinus patula* Schiede ex Schltdl & Cham.

Subspecies:

Variety:

Cultivar

Hybrid

Image file

2. Synonyms: *Pinus patula* var. *macrocarpa* Mast., *Pinus patula* var. *patula*

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.patula* Schiede ex Schltdl & Cham.

Bentham and Hooker (1862)

Kingdom: Plantae

Division: Phanerogamia

Class: Gymnospermeae

Ordo: Coniferae

Tribus: Abietineae Eichler

Genus: *Pinus* L.

Species: *P. patula* Schiede ex Schltdl & Cham.

4.Distribution:

Global: Native to the highlands of Mexico

India: Arunachal Pradesh, Sikkim, Tamil Nadu, Uttarakhand

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

6.Threat Status:

IUCN: Least concern

BSI:

7.Habit and Habitat: Evergreen tree, 1800 to 2700 m a.s.l., occurs in subtropical to temperate.

8.Life Form: Phanerophytes

9.Economic Importance:Timber

10. Probable Progenitor of:

11.DNA

C-value Methodology

2C (36.90 pg) 63 Feulgen microdensitometry 63

2C (43.84 pg) 22 Flow cytometry 22

2C (43.36 pg) 60 Flow cytometry 60

2C (50.10 pg) 20 Flow cytometry 20

12.Basic chromosome number(s): $x=12$ 35, 60, 63, 79

13. Zygotic chromosome number(s): $2n=24$ 60,63, 79

14. Gametic chromosome number(s): $n=12$ (female gametophyte)64

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

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16.Ploidy level: Diploid 60,63, 64, 79

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:60, 64

Karyotype Median and submedian 60, 64

Chromosome size Large 60, 64

NOR chromosome(s) 12 60

Degree of asymmetry Symmetrical 60, 64

Image file

22. Banding pattern(s):CMA+ bands 60

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

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.):