

Species Datasheet

Datasheet No. G-007.004.006 DBT- Network Programme
(Family.genus.species)

1.Taxon:

Species: *Picea spinulosa* (Grif.) A. Henry

Subspecies:

Variety:

Cultivar:

Hybrid:

Image file

2. Synonyms: *Abies spinulosa* Griff., *Picea morindoides* Rehder, *P. spinulosa* var.

pseudobrachytyla Silba, *P. spinulosa* subsp. *pseudobrachytyla* (Silba) Silba, *P. spinulosa* var.

yatungensis Silba, *P. spinulosa* subsp. *yatungensis* (Silba) Silba, *Pinus spinulosa* (Griff.) Griff.

3.Systematic Position:

Christenhusz et al. (2011)

Class: Equisetopsida C. Agardh

Subclass: Pinidae Cronquist

Order: Pinales Gorozh.

Family: Pinaceae Spreng.

Genus: *Picea* A. Dietr.

Species: *P. spinulosa* (Grif.) A. Henry

Bentham and Hooker (1862)

Kingdom: Plantae

Division: Phanerogamia

Class: Gymnospermeae

Ordo: Coniferae

Tribus: Abietineae Eichler

Genus: *Picea* A. Dietr.

Species: *P. spinulosa* (Grif.) A. Henry

4.Distribution:

Global: Bhutan, Eastern Himalayas, Nepal, Sikkim (India), Tibet

India: Arunachal Pradesh, Sikkim

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

6.Threat Status:

IUCN: Least concern

BSI:

7.Habit and Habitat: Large evergreen tree (40-50 m tall), 2400-3700 m a.s.l.The species is found between 2,700m and 3,600m in Bhutan and Arunachal Pradesh.

8.Life Form:Phanerophytes

9.Economic Importance:It has a quality timber which is used locally in Bhutan.The species is grown as an ornamental tree in Britain.

10. Probable Progenitor of:

11.DNA

C-value Methodology

12.Basic chromosome number(s): $x=128, 11$

13. Zygotic chromosome number(s): $2n=2411$

14. Gametic chromosome number(s):

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

Image file

16.Ploidy level: Diploid¹¹

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:¹¹

Karyotype Median and submedian¹¹

Chromosome size Large¹¹

NOR chromosome(s)

Degree of asymmetry Symmetrical¹¹

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

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.):