

Species Datasheet

Datasheet No. G-007.004.002
(family.genus.species)

1.Taxon:

Species: *Picea mariana* (Mill.) Britton, Sterns&Poggenb.

Subspecies:

Variety:

Cultivar:

Hybrid:

Image file

2. Synonyms: *Abies denticulata* Michx., *A. mariana* Mill., *A. nigra* (Castigl.) Du Roi, *A. nigra* var. *pumila* Knight ex Gordon, *Peuce rubra* Rich., *Picea brevifolia* Peck, *P. brevifolia* var. *semiprostrata* Peck, *P. ericoides* Bean, *P. mariana* var. *beissneri* Rehder, *P. mariana* f. *beissneri* (Rehder) Rehder, *P. mariana* var. *brevifolia* (Peck) Rehder, *P. mariana* f. *doumetii* (Carriere) O.L.Lipa, *P. mariana* f. *empetroides* Vict. & J. Rousseau, *P. mariana* f. *ericoides* (Bean) Rehder, *P. mariana* var. *fastigiata* (Rehder) Rehder, *P. mariana* f. *fastigiata* Rehder, *P. mariana* f. *grisea* Vict., *P. mariana* f. *mariana*, *P. mariana* f. *nana* (Beissn.) Rehder, *P. mariana* var. *pendula* (Schwer.) Fitschen, *P. mariana* var. *pendula-variegata* (Hornibr.) Fitschen, *P. mariana* var. *semiprostrata* (Peck) Teeri, *P. mariana* f. *semiprostrata* (Peck) S.F.Blake, *P. mariana* f. *squamea* Vict., *P. nigra* (Du Roi) Link, *P. nigra* var. *brevifolia* (Peck) Rehder, *P. nigra* var. *doumetii* Carriere, *P. nigra* var. *fastigiata* Carriere, *P. nigra* var. *nana* Beissn., *P. nigra* var. *pendula-variegata* Hornibr., *P. nigra* var. *semiprostrata* (Peck) Brainerd, L.R.Jones&Eggl., *P. nigra* var. *virgata* Rehder, *Pinus abies* var. *mariana* (Mill.) Munchh., *P. canadensis* var. *nigra* Castigl., *P. canadensis* var. *nigricans* Weston, *P. denticulata* (Michx.) Muhl., *P. mariana* (Mill.) Du Roi, *P. marylandica* Antoine, *P. nigra* Aiton

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. mariana* (Mill.) Britton, Sterns&Poggenb.

Bentham and Hooker (1862)

Kingdom: Plantae
Division: Phanerogamia
Class: Gymnospermeae
Ordo: Coniferae
Tribus: Abietineae Eichler
Genus: *Picea* A. Dietr.
Species: *P. mariana* (Mill.) Britton, Sterns&Poggenb.

4.Distribution:

Global: North America

India:

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

6.Threat Status:

IUCN: Least concern

BSI:

7.Habit and Habitat: Evergreen medium sized tree (5-15 m tall), *P. mariana* occurs mostly in bogs or swamps and on permafrost sites ('muskeg'), at elevations between <150 m and 800 m a.s.l.

8.Life Form:Phanerophytes

9.Economic Importance:Very important as a source of pulpwood

10. Probable Progenitor of:

11.DNA

C-value

Methodology

2C (31.61pg)¹⁵

Feulgen microdensitometry¹⁵

2C (34.90 pg)¹

Flow cytometry¹

2C (22.20 pg)²⁵

Feulgen microdensitometry²⁵

12.Basic chromosome number(s): $x=12^{5, 8, 10, 13, 15, 17}$

13. Zygotic chromosome number(s): $2n=24^{5, 10, 13, 15, 17}$

14. Gametic chromosome number(s): $n=$

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

Image file

16.Ploidy level:Diploid^{5, 10, 13, 15, 17}

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, 13, 14}

KaryotypeMedian and submedian^{5, 13, 14}

Chromosome sizeLarge^{5, 13, 14}

NOR chromosome(s)10¹⁴

Degree of asymmetry Symmetrical^{5, 13, 14}

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; Translocation etc.):