

Species Datasheet

Datasheet No. G-007.005.018
(family.genus.species)

1.Taxon:

Species: *Pinus ponderosa* Douglas ex C. Lawson

Subspecies:

Variety:

Cultivar:

Hybrid:

Image file

2. Synonyms:*Pinus beardsleyi* A.Murray bis, *P. benthamiana* Hartw., *P. craigiana* A.Murray bis, *P. engelmannii* Torr., *P. jeffreyi* var. *ambigua* Lemmon, *P. jeffreyi* var. *nigricans* Lemmon, *P. nootkatensis* Manetti ex Gordon, *P. parryana* Gordon, *P. ponderosa* var. *benthamiana* (Hartw.) Vasey, *P. ponderosa* subsp. *benthamiana* (Hartw.) Silba, *P. ponderosa* f. *crispata* Schwer., *P. ponderosa* var. *nana* Beissn., *P. ponderosa* var. *nigricans* (Lemmon) Lemmon, *P. ponderosa* var. *parryana* (Gordon) Rob., *P. ponderosa* var. *pendula* Hook.f. ex H.W.Sarg., *P. ponderosa* f. *pendula* (Hook.f. ex H.W.Sarg.) Rehder, *P. ponderosa* var. *ponderosa*, *P. ponderosa* subsp. *washoensis* (H.Mason & Stockw.) A.E.Murray, *P. ponderosa* var. *washoensis* (H.Mason & Stockw.) J.R.Haller & Vivrette, *P. resinosa* Torr., *P. sinclairiana* Carriere, *P. washoensis* H.Mason & Stockw.

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. ponderosa* Douglas ex C. Lawson

Bentham and Hooker (1862)

Kingdom: Plantae

Division: Phanerogamia

Class: Gymnospermeae

Ordo: Coniferae

Tribus: Abietineae Eichler

Genus: *Pinus* L.

Species: *P. ponderosa* Douglas ex C. Lawson

4.Distribution:

Global: Algeria; France, Gibraltar, Italy, Monaco, Morocco, Portugal, Spain, Tunisia

India:

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

6. Threat Status:

IUCN: Least concern

BSI:

7. Habit and Habitat: Evergreen tree (30-50 m tall). *P. ponderosa* is one of the most widely distributed pines, It grows on soils derived from many rock types, both acidic and basic varying from around pH 5 to pH 9, and usually with a capacity to retain moisture but well drained.

8. Life Form: Phanerophytes

9. Economic Importance: Timber, Ornamental

10. Probable Progenitor of:

11. DNA

C-value

Methodology

2C (39.70 pg) ⁶³

Feulgen microdensitometry⁶³

2C (44.60 pg) ⁹⁶

Flow cytometry⁹⁶

2C (52.44 pg) ²⁰

Flow cytometry²⁰

12. Basic chromosome number(s): $x=12$ 8, 23, 35, 49, 63, 73, 74

13. Zygotic chromosome number(s): $2n=24$ 8, 23, 49, 63, 73, 74

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

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

Image file

16. Ploidy level: Diploid 8, 23, 49, 63, 73, 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: 8, 23, 49, 63, 73, 74

Karyotype Median shortest pair submedian 8, 23, 49, 63, 73, 74

Chromosome size Large^{8, 23, 49, 63, 73, 74}

NOR chromosome(s) 6⁷⁴

Degree of asymmetry Symmetrical^{8, 23, 49, 63, 73, 74}

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.):**