

Species Datasheet

Datasheet No. G-011.006.007
(family.genus.species)

1.Taxon:

Species: *Cupressus macrocarpa* Hartw. ex Gordon

Subspecies:

Variety:

Cultivar:

Hybrid:

Image file

2. Synonyms: *Callitropsis macrocarpa* (Hartw.) D.P.Little, *Cupressus hartwegii* Carriere, *C. lambertiana* Carriere, *C. lambertiana* var. *fastigiata* Carriere, *C. macrocarpa* Hartw. ex Gordon, *C. macrocarpa* var. *angulata* Lemmon, *C. macrocarpa* var. *crippsii* R.Sm., *C. macrocarpa* f. *crippsii* (R.Sm.) Rehder, *C. macrocarpa* var. *farallonensis* Mast., *C. macrocarpa* f. *fastigiata* (Carriere) Rehder, *C. macrocarpa* var. *lambertiana* (Carriere) Mast., *C. macrocarpa* subsp. *lobosensis* Silba, *C. macrocarpa* f. *lutea* (Webster) Rehder, *C. macrocarpa* var. *lutea* Webster, *C. macrocarpa* f. *pygmaea* A.B.Jacks., *C. reinwardtii* Beissn., *Hesperocyparis macrocarpa* (Hartw.) Bartel, *Neocupressus macrocarpa* (Hartw.) de Laub.

3. Systematic Position:

Christenhusz et al. (2011)

- Class: Equisetopsida C. Agardh
- Subclass: Pinidae Cronquist
- Order: Cupressales Link
- Family: Cupressaceae Gray
- Genus: *Cupressus* L.
- Species: *C. macrocarpa* Hartw. ex Gordon

Bentham and Hooker (1862)

Kingdom: Plantae
Division: Phanerogamia
Class: Gymnospermeae
Ordo: Coniferae
Tribus: Cupressineae
Genus: *Cupressus* L.
Species: *C. macrocarpa* Hartw. ex Gordon

4.Distribution:

Global: Native of Monterey locality in California, grown successfully in S. Africa, New Zealand, Australia, Uganda & Kenya.

India:

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

6. Threat Status:

IUCN: Vulnerable

BSI:

7. Habit and Habitat: Medium sized evergreen tree (up to 30 m tall) Grown at higher elevations, this is restricted to a narrow coastal strip on rocky cliffs, slopes and headlands, forming pure stands or associated with *Pinus radiata*, in loam or sand over granitic rocks or in rock crevices.

8. Life Form: Phanerophytes

9. Economic Importance: In some African countries as a timber tree, but mostly as an ornamental tree.

10. Probable Progenitor of:

11. DNA

C-value	Methodology
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2C (28.36 pg)⁹ Feulgen microdensitometry⁹

12. Basic chromosome number(s): $x=11$ ^{3, 5, 9}

13. Zygotic chromosome number(s): $2n=22$ ^{3, 6, 9}

14. Gametic chromosome number(s): $n=22$ ⁷

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

Image file

16. Ploidy level: Diploid^{3, 6, 9}, Tetraploid (sporadic)⁷

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:^{3,6}

KaryotypeMedian and submedian^{3,6}

Chromosome sizeLarge^{3,6}

NOR chromosome(s)6³

Degree of asymmetrySymmetrical^{3,6}

Image file

22. Banding pattern(s):CMA+ bands³

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 22 II⁷

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.):