

Species Datasheet

Datasheet No. G-011.008.001 DBT- Network Programme
(Family.genus.species)

1.Taxon:

Species: *Metasequoia glyptostroboides* Hu & W.C. Cheng

Subspecies:

Variety:

Cultivar

Hybrid

Image file

2. Synonyms: *Metasequoia glyptostroboides* var. *caespitose* Y.H.Long&Y.Wu,
M. glyptostroboides subsp. *caespitose* (Y.H.Long&Y.Wu) Silba,
M. glyptostroboides subsp. *neopangaea* (Silba) Silba, *M. honshuenensis* Silba& Callahan,
M. neopangaea Silba, *Sequoia glyptostroboides* (Hu & W.C.Cheng) Weide

3.Systematic Position:

Christenhusz et al. (2011)

- Class: Equisetopsida C. Agardh
- Subclass: Pinidae Cronquist
- Order: Cupressales Link
- Family: Cupressaceae Gray
- Genus: *Metasequoia* H.H. Hu & W.C. Cheng
- Species: *M. glyptostroboides* Hu & W.C. Cheng

Bentham and Hooker (1862)

Kingdom: Plantae

Division: Phanerogamia

Class: Gymnospermeae

Ordo: Coniferae

4.Distribution:

Global: Native to China

India: West Bengal and Uttarakhand (FRI, Dehradun)

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

6.Threat Status:

IUCN:Endangered

BSI:

7.Habit and Habitat: Tree (60 m tall), an extensive flood plain forest, fast growing tree of moist habitat, The soil is clay and sand derived from sandstone, with slightly acid to neutral

pH and a strongly fluctuating but not deep water table. The climate is characterized by hot summers and cold winters.

8.Life Form:Phanerophytes

9.Economic Importance:Trees of this species must have been used for construction timber locally.

10. Probable Progenitor of:

11.DNA

C-value Methodology

2C (12.95 pg) 5Feulgenmicrodensitometry5

2C (22.08 pg)3Flow cytometry3

2C (19.30 pg)8 Flow cytometry8

12.Basic chromosome number(s): $n=11$ 1, 2, 4, 6, 7, 9

13. Zygotic chromosome number(s): $2n=22$ 2, 6, 7, 9, 22+B1

14. Gametic chromosome number(s): $n=11$ 10

15.Specialized chromosomes (B chromosomes/Sex chromosomes/Polytene chromosomes/Neocentric chromosomes):B chromosome1

Image file

16.Ploidy level:Diploid1, 2, 6, 7, 9, 10

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:2, 6

KaryotypeMedian and submedian2, 6, 9

Chromosome sizeLarge2, 6

NOR chromosome(s)62

Degree of asymmetrySymmetrical2, 6

Image file

22. Banding pattern(s):CMA+ 9

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 11II 10

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.):