Species Datasheet

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Datasheet No. G-002.007.005
(family.genus.species)

1.Taxon:

Species: *Zamia pygmaea* Sims
Subspecies:
Variety:
Cultivar:
Hybrid:

Image file

2. Synonyms:*Palmifoliumkickxii* (Miq.) Kuntze,*P.ottonis* (Miq.) Kuntze,*P.pygmaeum* (Sims) Kuntze,*Z.chamberlainii* J.Schust.,*Z.kickxii* Miq.,*Z.media* f. *silicea* (Britton) J.Schust.,*Z.ottonis* Miq.,*Z.pumila* subsp. *pygmaea* (Sims) Eckenw.,*Z.pygmaea* var. *kickxii* (Miq.) J.Schust.,*Z.pygmaea* var. *ottonis* (Miq.) J.Schust.,*Z.pygmaea* var. *wrightii* A.DC.,*Z.rotundifolia* J.Schust., *Z.silicea* Britton

3.Systematic Position:

Christenhusz*et al.* (2011)

- Class: Equisetopsida C. Agardh
- Subclass: Cycadidae Pax
- Order: Cycadales Pers. ex Bercht. & J.Presl
- Family: Zamiaceae Horan.
- Genus: *Zamia* L.
- Species: *Z. pygmaea* Sims

Bentham and Hooker (1862)
Kingdom: Plantae
Division: Phanerogamia
Class: Gymnospermeae
Ordo: Cycadaceae Pers.
Tribus: Encephalarteae
Genus: *Zamia* L.
Species: *Z. pygmaea* Sims

4.Distribution:

Global: Endemic to western Cuba and the Isla de la Juventud

India: Planted at Botanical Garden, NBRI, Lucknow,Uttar Pradesh

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

6.Threat Status:

IUCN: Critically Endangered

BSI:

7.Habit and Habitat: Smallest cycad, plants of *Z. pygmaea* generally grow in open dry habitats. These vary from serpentine to limestone outcrops to almost pure sand, along with *Z. angustifolia*, is one of the most xerophytic species in the genus. Plants occur in dry brush covered hills, pine forests and areas of white sand.

8.Life Form: Phanerophytes

9.Economic Importance: Horticulture

10. Probable Progenitor of:

11.DNA

C-value **Methodology**

12.Basic chromosome number(s):x=8[1, 4, 9, 11, 14, 15]

13. Zygotic chromosome number(s): 2n=16 [1, 4, 9, 11, 14, 15]

14. Gametic chromosome number(s):n=

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

Image file

16.Ploidy level: Diploid[1, 4, 9, 11, 14, 15]

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:[1, 4, 9, 11, 14, 15]

Karyotype Mostly median and submedian[1, 4, 9, 11, 14, 15]

Chromosome size Large[1, 4, 9, 11, 14, 15]

NOR chromosome(s) 6[15]

Degree of asymmetry Symmetrical[1, 4, 9, 11, 14, 15]

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22. Banding pattern(s):CMA^{+}, $DAPI^{+}$ bands[14]

Image file

23.Physical mapping of chromosomes:45S rDNA, 5S rDNA[15]

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.):