

Species Datasheet

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Datasheet No. P-002.001.001

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(family.genus.species)

DBT- Network Programme

1.Taxon:

Species: *Calamaria coromandelina* (L.f.) Kuntze

Subspecies:

Variety:

Cultivar

Hybrid

Image file

2. Synonyms:

Isoetes coromandeliana L.f.

3.Systematic Position:

Christenhusz 2011

- Class: Equisetopsida C.Agardh
- Subclass: Lycopodiidae Bek.
- Order: Isoetales Prantl
- Family: Isoetaceae Reichenb.
- Subfamily:
- Genus: *Calamaria* F.Boie
- Species: *Calamaria coromandelina* (L.f.) Kuntze
- Subspecies:
- Variety:

4.Distribution:

Global: Australia (Western Australia); India (Andhra Pradesh, Bihar, Gujarat, Kerala, Madhya Pradesh, Maharashtra, Orissa, Tamil Nadu); Thailand; Viet Nam

India: Andhra Pradesh, Bihar, Gujarat, Madhya Pradesh, Maharashtra, Orissa, Tamil Nadu, Kerala (Kannur (Madayipara), Malappuram, Thrissur and Ernakulam (paddy fields and temporary pools)

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

6. Threat Status:

IUCN: Least Concern [ver 3.1](#)

BSI:

7. Habit and Habitat: growing in degraded wetlands, temporary pools and laterite pools. It is also reported from lakes and hill tops

8. Life Form:

9. Economic Importance:

10. Probable Progenitor of:

11. DNA

C-value Methodology

12. Basic chromosome number(s): $x=11^{1, 2, 8, 9, 10, 12, 15}$

13. Zygotic chromosome number(s): $2n=22+1f^{1, 2, 8, 9, 10, 12, 15}$, $23^{2, 8}$,

$33+1f^{1, 3, 4, 8, 9, 11, 13, 14, 16, 18}$, $34^{6, 7}$, $44+1f^{11, 13}$, $66+1^{13}$

14. Gametic chromosome number(s): $n=11+1^5$, $22+1^9$

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

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16. Ploidy level: Diploid (apogamous)^{1, 5, 8, 9} ,

Diploid (aneuploid)⁸ ,

Triploid (sterile, hybrid)^{1, 3, 4, 8, 10, 13, 14, 16, 17} ,

Triploid (aneuploid)⁸ ,

Tetraploid^{11,13} ,

Hexaploid (sterile, hybrid)¹³

Image file

17. Agametoploidy:

18. Nature of polyploidy (auto, segmental, allo, autoallo): Autotriploid, tetrasomic for 1 chromosome^{6, 7}

19. Genomic formula:

20. Aberrant chromosome number(s) (aneuploidy, aneusomaty, polysomaty):

21. Somatic chromosomes:^{1, 6, 7, 9, 13}

Karyotype Median, submedian, subterminal^{1, 6, 7, 9, 13}

Chromosome size Small^{1, 6, 7, 9, 13}

NOR chromosome(s)

Degree of asymmetry Symmetrical^{1, 6, 7, 9, 13}

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 Diploid: $11\text{II}+1^5$,

Diploid (apogamous): $22\text{I}+1\text{f}^1$,

$3\text{IV}+2\text{II}+7\text{I}$; $1\text{IV}+1\text{I}+17\text{I}$; $2\text{IV}+2\text{III}+2\text{II}+5\text{I}$; $1\text{IV}+19\text{I}$; $2\text{IV}+1\text{III}+4\text{II}+4\text{I}$; $4\text{IV}+7\text{I}$; $1\text{IV}+1\text{III}+3\text{II}+10\text{I}$ ⁹

Triploid (sterile, asynaptic): 33I ^{11, 16, 17},

Tetraploid: Irregular meiosis ¹¹

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.): Translocations ^{1, 6, 7}, Apogamy ^{1, 5, 8, 9}