

Species Datasheet

Datasheet No. A-073.003.017
(family.genus.species)

DBT- Network Programme

1. Taxon:

Species *Crinum zeylanicum* (L.) L.
Subspecies
Variety
Cultivar
Hybrid
Image file

2. Synonyms: *Amaryllis zeylanica* L., *Crinum latifolium* var. *zeylanicum* (L.) Hook. f., *C. latifolium* var. *zeylanicum* (L.) Hook.f., *Taenais zeylanica* (L.) Salisb.

3. Systematic Position:

APG IV (2016)

- Kingdom: Plantae
- Clade: Angiosperms
- Clade: Monocots
- Order: Asparagales Link
- Family: Amaryllidaceae J. St.-Hil.
- Genus: *Crinum* L.
- Species: *C. zeylanicum* (L.) L.

Bentham and Hooker (1862)

Kingdom: Plantae
Division: Phanerogamia
Class: Monocotyledones
Series: Epigynae
Ordo: Amaryllideae Dumort.
Genus: *Crinum* L.
Species: *C. zeylanicum* (L.) L.

4. Distribution:

Global: West Africa, Sudano-Zambezian region, Sri Lanka.

India: West India

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

6. Threat Status:

IUCN:

BSI:

7. Habit and Habitat: Herb. Riverine vegetation, damp grassland

8. Life Form: Bulbous geophytes

9. Economic Importance: Ornamental and medicinal

10. Probable Progenitor of:

11. DNA

C- value

Methodology

12. Basic chromosome number(s): $x=11$ ²⁷

$x=15$ ²⁷

13. Zygotic chromosome number(s): $2n=16$ ^{28,29}

$2n=20$ ^{28,29}

$2n=22$ ^{2,27,29,45}

$2n=23$ ^{28,29}

$2n=30$ ²⁷

14. Gametic chromosome number(s): $n=11$ ²⁹

$n=15$ ²⁷

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

Image file

16. Ploidy level: Diploid^{27,29}

Image file

17. Agametoploidy

18. Nature of polyploidy (auto, segmental, allo, autoallo):

19. Genomic formula:

20. Aberrant chromosome number(s) (aneuploidy,aneusomaty,polysomaty): Aneuploidy^{28,29}

21. Somatic chromosomes:

Karyotype: Majority submetacentric chromosomes^{2,27,29}

Chromosome size Medium to large^{27,29}

NOR chromosome(s): 2 NOR², 6 NOR^{28,29}

Degree of asymmetry:

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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 15 II²⁷, 4 I+ 13 II²⁷, 6 I²⁷, 8 II²⁷, 9 II²⁷, 2 I+14 II²⁷, 2 I+5 II²⁷, 6 I+12 II²⁷, 11 II²⁹

Image file

27. Chromosome distribution at anaphase I: Irregularities like inversion bridge+fragment, large micronucleus²⁷, Most anaphase plates showed 11:11 disjunction²⁹

28. Genetic diversity:

Chromosomal level

Image file

DNA level¹⁴

29. Any other information (Apomixis; Inversion; Male sterility; Pollen grain mitosis; Pollen stainability; Translocations etc):