

Species Datasheet

Datasheet No. A-073.003.003
(family.genus.species)

DBT- Network Programme

-

1. Taxon:

Species *Crinum asiaticum* L.

Subspecies

Variety

Cultivar

Hybrid

Image file

2. **Synonyms:** *Amaryllis carnosa* Hook.f, *Bulbine asiatica* (L.) Gaertn, *Crinum albiflorum* Noronha, *C. angustifolium* Herb. ex. Steud., *C. anomalum* Herb, *C. asiaticum* var. *asiaticum*, *C. asiaticum* var. *declinatum* Herb.,

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. asiaticum* L.

Bentham and Hooker (1862)

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

4. Distribution:

Global: Tropical Asia

India: Throughout India

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

6. Threat Status:

IUCN:

BSI:

7. **Habit and Habitat:** Herb. Tropical moist Forest

8. **Life Form:** Bulbous geophytes

9. **Economic Importance:** Medicinally important and ornamental

10. Probable Progenitor of:

11. DNA

C- value

Methodology

12. Basic chromosome number(s): $x = 11$ ^{2, 3, 7, 8, 9, 10}

13. Zygotic chromosome number(s): $2n = 22$ ^{2, 3, 4, 5, 6, 8, 9, 10, 11, 12}

$2n = 33$ ⁹

14. Gametic chromosome number(s): $n = 11$ ^{2, 12}

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

Image file

16. Ploidy level: Diploid ^{9, 10}

Triploid ⁹

Image file

17. Agametoploidy

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

19. Genomic formula:

20. Aberrant chromosome number(s) (aneuploidy, aneusomy, polysomy):

21. Somatic chromosomes:

Karyotype: Majority submetacentric chromosomes ^{2, 9, 10}

Majority metacentric chromosomes ⁸

Chromosome size: Medium to large ⁹

NOR chromosome(s): 2 NOR ^{2, 8, 10}

Degree of asymmetry: Asymmetrical ⁹

Image file

22. Banding pattern(s): Centromeric Q bands ¹³, CMA bands ³, DAPI bands ³

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 11 II ^{2,10}, 4-8 III ⁹, 6 III ⁹

Image file

27. Chromosome distribution at anaphase I: Irregular ⁹

28. Genetic diversity:

Chromosomal level

Image file

DNA level ^{14, 15, 16}

29. Any other information (Apomixis; Inversion; Male sterility; Pollen grain mitosis; Pollen stainability; Translocations etc): Pollen fertility- 11% ⁹, Pollen stainability- 95.8% ¹⁰