Species Datasheet

Datasheet No. A-073.005.004 **DBT- Network Programme**
(family.genus.species)

1. Taxon:

Species *Hymenocallis littoralis* (Jacq.) Salisb.
Subspecies
Variety
Cultivar
Hybrid

Image file

2. Synonyms: *Hymenocallis adnata* Herb., *H. adnata* var. *disticha* (Sims) Herb., *H. adnata* var. *dryanderi* (Ker Gawl.) Kunth, *H. adnata* var. *princeps* Herb., *H. adnata* var. *staplesiana* Herb., *H. americana* (Mill.) M.Roem., *H. americana* f. *disticha* (Sims) Voss, *H. americana* f. *staplesiana* (Herb.) Voss, *H. arenaria* M.Roem., *H. biflora* K.Koch & C.D.Bouché, *H. disticha* (Sims) Herb., *H. dryanderi* (Ker Gawl.) M.Roem., *H. insignis* Kunth, *H. littoralis* var. *disticha* (Sims) Herb. ex Sims & Curtis, *H. littoralis* var. *dryanderi* (Ker Gawl.) Herb. ex Sims, *H. littoralis* var. *dryandri* (Ker Gawl.) Herb., *H. littoralis* var. *longituba* Herb., *H. niederleinii* Pax, *H. panamensis* Lindl., *H. pedalis* Herb., *H. peruviana* M.Roem., *H. senegambica* Kunth & C.D.Bouché, *H. stapelsiana* (Herb.) M.Roem., *H. staplesii* Sweet, *H. tenuiflora* Herb., *Pancratium acutifolium* Sweet, *P. americanum* Mill., *P. distichum* Sims, *P. dryanderi* Ker Gawl., *Pancratium littorale* Jacq., *Pancratium littorale* var. *dryanderi* (Ker Gawl.) Schult. & Schult.f., *P. littorale* var. *dryandri* (Ker Gawl.) Schult., *P. littorale* var. *dryandri* (Ker Gawl.) Schult., *P. pedale* (Herb.) Schult. & Schult.f., *P. pediale* Lodd., *P. staplesii* (Sweet) Steud., *P. tenuiflorum* (Herb.) Herb. ex Steud., *Troxistemon distichus* (Sims) Raf., *T. dryanderi* (Ker Gawl.) Raf., *T. littorale* (Jacq.) Raf

3. Systematic Position:

APG IV (2016)

- Kingdom: Plantae
- Clade: Angiosperms
- Clade: Monocots
- Order: Asparagales Link
- Family: Amaryllidaceae J. St.-Hil.
- Genus: *Hymenocallis* Salisb.
- Species: *H. littoralis* (Jacq.) Salisb.

Bentham and Hooker (1862)
Kingdom: Plantae
Division: Phanerogamia
Class: Monocotyledones
Series: Epigynae
Ordo: Amaryllideae Dumort.
Genus: *Hymenocallis* Salisb.
Species: *H. littoralis* (Jacq.) Salisb.

4. Distribution:

Global: Mexico to N. Peru and Brazil

India: Tamil Nadu, Kerala

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

6. Threat Status:

IUCN:

BSI:

7. Habit and Habitat: Herb. Grows in tropical dry forest.

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=10 [12]

x = 11 [1,3,12]

x = 12 [12]

x = 23 [2,7]

13. Zygotic chromosome number(s): 2n= 44 [1,5,16]

2n= 46 [2,3,4,6,7,11,12,14]

2n=48 [1,5]

2n= 65 [8]

2n=66 [3]

2n=68 [9]

2n=69 [13]

14. Gametic chromosome number(s): n= 23 [7]

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

Image file

16. Ploidy level: Diploid [2]

Tetraploid [1]

Secondarily balanced polyploidy [3]

Polyploid [9]

Image file

17. Agametoploidy

18. Nature of polyploidy (auto, segmental, allo, autoallo): Segmental allopolyploid [3]

19. Genomic formula:

20. Aberrant chromosome number(s) (aneuploidy, aneusomaty, polysomaty): Variant chromosome number showing 2n = 11 [1,5], 2n=40 [3], 2n=44 [3], 2n= 46 [1,5], 2n=48 [3], 2n=50 [1,3.5], 2n=61 [3], 2n=68[1,3,5], 2n=70 [3], 2n=71 [3]

21. Somatic chromosomes:

Karyotype: Majority submetacentric chromosomes [1,3,7,9,12], Majority acrocentric chromosomes [3], Majority metacentric chromosomes [4]

Chromosome size: Small to very large [1], Small to large

NOR chromosome(s): 2 NOR [7], 4 NOR [3], 6 NOR [3], 10 NOR [1]

Degree of asymmetry: Symmetrical [3], Stebbin's 2B category [4]

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 1VI+1V+2III+13II+4I [3]

Univalents, bivalents, trivalents, quadrivalents, pentavalents and hexavalents associations [3]

Image file

27. Chromosome distribution at anaphase I: 20:23 segregation with a bridge fragment configuration and 6 small fragments already

segregated to the poles [3], Regular [3], irregular distribution (34:30 with 2 laggards, 29:29 with one laggard, 45:54 with 14 laggards and one bridge, 5 bridges and 30-38 laggards) [3]

28. Genetic diversity:

Chromosomal level

Image file

DNA level

29. Any other information (Apomixis; Inversion; Male sterility; Pollen grain mitosis; Pollen stainability; Translocations etc): Pollen fertility- 32%, 35 % [3]