

# Species Datasheet

Datasheet No. A-028.015.001  
(family.genus.species)

DBT- Network Programme

-

## 1. Taxon:

Species *Pistia stratiotes* L.

Subspecies

Variety

Cultivar

Hybrid

Image file

**2. Synonyms:** *Apiospermum obcordatum* (Schleid.) Klotzsch, *Limnonesis commutata* (Schleid.) Klotzsch, *L. friedrichsthaliana* Klotzsch, *Pistia aegyptiaca* Schleid., *P.aethiopica* Fenzl ex Klotzsch, *P.africana* C.Presl, *P.amazonica* C.Presl, *P.brasiliensis* Klotzsch, *P.commutata* Schleid., *P.crispata* Blume, *P.cumingii* Klotzsch, *P.gardneri* Klotzsch, *Phorkeliana* Miq., *P.leprieuri* Blume, *P.linguiformis* Blume, *P.minor* Blume, *P.natalensis* Klotzsch, *P.obcordata* Schleid., *P.occidentalis* Blume, *P.schleideniana* Klotzsch, *P.spathulata* Michx., *P.stratiotes* var. *cuneata* Engl., *P.stratiotes* var. *linguiformis* Engl., *P.stratiotes* var. *obcordata* (Schleid.) Engl., *P.stratiotes* var. *spathulata* (Michx.) Engl., *P.texensis* Klotzsch, *P.turpini* Blume, *P.turpinii* K.Koch, *P.weigeltiana* C.Presl, *Zala asiatica* Lour.

## 3. Systematic Position:

### APG IV (2016)

- Kingdom: Plantae
- Clade: Angiosperm
- Clade: Monocots
- Order: Alismatales R. Br. ex Bercht. & J. Presl
- Family: Araceae Juss.
- Genus: *Pistia* L.
- Species: *P. stratiotes* L.

### Bentham and Hooker (1862)

Kingdom: Plantae  
Division: Phanerogamia  
Class: Monocotyledones  
Series: Nudiflorae  
Ordo: Aroideae Arn.  
Genus: *Pistia* L.  
Species: *P. stratiotes* L.

## 4. Distribution:

**Global:** Pantropical

**India:** Throughout India

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

## 6. Threat Status:

**IUCN:** Least Concern

**BSI:**

**7. Habit and Habitat:** Aquatic herb, tropical wetlands; floating aquatic in open, tranquil, freshwater habitats

**8. Life Form:** Hydrophytes

**9. Economic Importance:** The plants are cultivated for animal feed and are used to treat swelling and urinary tract infections.

**10. Probable Progenitor of:**

**11. DNA**

**C- value**

**Methodology**

**12. Basic chromosome number(s):**  $x=7$ <sup>3</sup>

**13. Zygotic chromosome number(s):**  $2n=28$ <sup>1,2,3,4,5,6,7,8,9,10</sup>

**14. Gametic chromosome number(s):**  $n=14$ <sup>2</sup>

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

Image file

**16. Ploidy level:**

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:**

**Karyotype:** Majority metacentric to nearly metacentric chromosomes<sup>7</sup>, Majority submetacentric to nearly submetacentric chromosomes<sup>7</sup>, Majority submetacentric chromosomes<sup>8</sup>

**Chromosome size:** Very small<sup>6</sup>, Very small to small<sup>7,8</sup>

**NOR chromosome(s):** 2 NOR<sup>7</sup>, 6 NOR<sup>7</sup>

**Degree of asymmetry:**

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 14II<sup>2</sup>**

Image file

**27. Chromosome distribution at anaphase I:** Regular with the distribution of 14-14 chromosomes to the poles<sup>2</sup>

**28. Genetic diversity:**

**Chromosomal level**

Image file

**DNA level<sup>11,12</sup>**

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