

Species Datasheet

Datasheet No. P-030.012.050
(family.genus.species)

DBT- Network Programme

1. Taxon:

Species: *Pteris vittata* L.

Subspecies:

Variety:

Cultivar

Hybrid

Image file

2. Synonyms:

Pteriscostata Bory.

Pteris diversifolia Sw.

Pterisensifolia Poir.

Pterisinaequilateralis Poir.

Pteris microdonata Gaudin

Pteris vittata f. *cristata* Ching

Pycnodoria vittata (L.) Small

3. Systematic Position:

Christenhusz 2011

- Class: Equisetopsida C. Agardh
- Subclass: Polypodiidae Cronquist, Takht. & Zimmerm.
- Order: Polypodiales Link.
- Family: Pteridaceae E.D.M. Kirchn
- Subfamily: Pteridoideae C. Chr. Ex Crabbe, Jermy & Mickel
- Genus: *Pteris* L.
- Species: *Pteris vittata* L.
- Subspecies:
- Variety:

4. Distribution:

Global: India, Afghanistan, Pakistan, Nepal, China, Taiwan, Philippines, Australia, Africa, Mediterranean Europe

India: Throughout Himalayas , Western Ghats

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

6.Threat Status:

IUCN:

BSI:

7.Habit and Habitat:associated with limestone habitats. It may be seen growing on concrete structures and cracks, 1500m

8.Life Form:

9.Economic Importance:It is grown in gardens for its attractive appearance, or used in pollution control schemes: it is known to be a hyperaccumulator plant of arsenic used in phytoremediation.

10. Probable Progenitor of:

11.DNA

C-value	Methodology
---------	-------------

12.Basic chromosome number(s): $x=29^{21, 42, 62, 64, 66, 73}$

13. Zygotic chromosome number(s): $2n=58^{21, 42},$

$87^{7, 25, 26},$

$116^{2, 39, 40, 50, 61, 68, 69, 72, 81},$

$c.116^{20},$

$145^{25, 26},$

$174^{1, 5},$

232^{42}

14. Gametic chromosome number(s): $n=29^{62, 64, 66, 73},$

58 15, 26, 28, 29, 33, 35, 36, 37, 40, 42, 43, 45, 46, 51, 52, 61, 68, 69, 73, 75, 78, 82, 86, 87,

87 1, 13, 24

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

Image file

16.Ploidylevel:Diploid (sexual) ^{21, 62, 64, 66, 73}

Diploid (apogamous)⁴²,

Triploid (sterile)^{7, 25, 26}

Tetraploid (sexual)^{2, 15, 20, 26, 28, 29, 33, 35, 36, 37, 39, 40, 45, 42, 43, 46, 50, 51, 52, 61, 68, 69, 72, 73, 75, 78, 81, 82, 86, 87},

Pentaploid (sterile) ^{25, 26},

Hexaploid (sexual)^{1,5, 13, 24},

Octoploid (sexual) ⁴²

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

Chromosome size

NOR chromosome(s)

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 Diploid : $2n = 62, 64, 66, 73$,

Diploid (apogamous): 8-celled sporangium $58n^{42}$,

Triploid: $29\text{II}+29\text{I}^{25, 26}$,

Tetraploid : $58\text{II}^{15, 26, 28, 29, 33, 35, 36, 37, 40, 42, 43, 45, 46, 51, 52, 61, 68, 69, 72, 73, 75, 78, 82, 86, 87}$,

Pentaploid (sterile): $29\text{II}+87\text{I}^{25, 26}$,

Hexaploid : $87\text{II}^{1, 13, 24}$

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;Translocationsetc.):Apogamy⁴²