Species Datasheet

Datasheet No. P-030.017.001
(family.genus.species)

DBT- Network Programme

1.Taxon:

Species: *Hemionitis arifolia* (Burm. f.) T. Moore

Subspecies:
Variety:
Cultivar
Hybrid

Image file

2. Synonyms:

*Aspleniumarifolium*Burm. f.
Gymnogrammaarifolia (Burm. f.) Kuhn
Gymnogrammasagittata (Fée) Ettingsh.
Hemionitiscordata Hook. &Grev.
*Hemionitissagittata*Fée
*Hemionitistoxotis*Trevis.

3.Systematic Position:
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- Class: Equisetopsida C.Agardh
- Subclass: Polypodiidae Cronquist, Takht. & Zimmerm.
- Order: Polypodiales Link.
- Family: Pteridaceae E.D.M. Kirchn
- Subfamily: Cheilanthoideae W.C. Shieh
- Genus: *Hemionitis* L.
- Species: *Hemionitis arifolia* (Burm.f.) T.Moore.
- Subspecies:

4.Distribution:

Global: Laos, Sri Lanka, Vietnam and possibly China, Taiwan and other nations in tropical Southeast Asia

India:

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

6.Threat Status:

IUCN:

BSI:

7.Habit and Habitat: Both an epiphyte and grows on trees as well as a terrestrial plant.

8.Life Form:

9.EconomicImportance: Used to treat diabetes, has been medically evaluated for its hypoglycemic and anti-diabetic properties in rats. Some of the extracts actually found to lower the levels of blood glucose in sugar fed rats but only a small amount of the hypoglycemic activity in overnight fasted non-diabetic rats was seen. It is unknown if there is a possible human use for the fern's extracts. Ornamental

10. Probable Progenitor of:

11.DNA
C-value **Methodology**

12.Basic chromosome number(s): x=30[1, 2, 3, 4, 5, 6, 7, 8, 9, 10]

13. Zygotic chromosome number(s):2n=90[1, 2, 3, 4, 5, 6, 7, 8, 9, 10]

14. Gametic chromosome number(s):n=90[1, 2, 3, 4, 5, 6, 7, 8, 9, 10]

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

Image file

16.Ploidylevel: Triploid (apogamous) [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]

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 Triploid (apogamous): 8-celled sporangium 90II[1, 2, 3, 4, 5, 6, 7, 8, 9, 10]

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.): Apogamy[1, 2, 3, 4, 5, 6, 7, 8, 9, 10]