Species Datasheet

Datasheet No. P-006.001.006
(family.genus.species)

DBT- Network Programme

1.Taxon:

Species: *Botrychium virginianum* (L.) Sw.

Subspecies:
Variety:
Cultivar
Hybrid

Image file

2. Synonyms:

*Botrychiumbrachystachys*Kunze
Botrychiumcharcoviense Port.
Botrychiumcicutarium (Savigny) Sw.
*Botrychiumdichronum*Underw.
Botrychiumvirginianum subsp. *europaeum* (Ångström) Jáv.
Botrychiumvirginianum var. *meridionale* Butters
Botrychiumvirginianum subsp. *meridionale* (Butters) R.T. Clausen
Botrychiumvirginianum var. *mexicanum* Hook. &Grev.
Botrychiumvirginianum var. *virginianum*
Botrychiumvirginianum f. *virginianum*
Botrychiumvirginianum subsp. *virginianum*
Botrypusvirginianus (L.) Michx.
Botrypusvirginianus subsp. *europaeus* (Ångström) Holub
Japanobotrychiumvirginianum (L.) M. Nishida
*Osmundacicutaria*Savigny
Osmundavirginiana L.
Osmundopterisvirginiana (L.) Small

3.Systematic Position:
Christenhusz 2011

- Class: Equisetopsida C.Agardh
- Subclass: Ophioglossidae Klinge
- Order: Ophioglossales Link
- Family: Ophioglossaceae Martinov.

- Subfamily:
- Genus: *Botrychium* Sw.
- Species: *Botrychium virginianum* (L.) Sw.
- Subspecies:
- Variety:

4.Distribution:

Global:N. Europe, E. Asia. N. America and S. America

India:

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

6.Threat Status:

IUCN:

BSI:

7.Habit and Habitat: Terrestrialinrich moist or dry woods. Common to abundant, especially in shaded forests and shrubby second growth, rare or absent in arid regions from sea level to 1500 metres

8.LifeForm: Herbaceous perennial

9.EconomicImportance: This large succulent fern is boiled and eaten in the Himalayas. A lotion made from the roots is applied to snakebites, bruises, cuts and sores, A tea made from the roots is emetic, induces sweating and is expectorant , also used in the treatment of lung ailments.

10. Probable Progenitor of:

11.DNA

C-value	**Methodology**
2C (20.44 pg)[3]	Flow cytometry[3]

12.Basic chromosome number(s):x=46[7, 12, 15]

13. Zygotic chromosome number(s):2n=184[13]

Niizeki, Nishida & Kurita 1963

14. Gametic chromosome number(s):n=92[7, 16]

Wagner, F. S. 1993. Chromosomes of North American grapeferns and moonworts (Ophioglossaceae: Botrychium). Contr. Univ. Michigan Herb. 19: 83–92.

Kurita, S. 1986. Chromosome studies on South American pteridophytes (1). In: Contributions to the Botany of the Andes. (II) 47–67.

90 [4]

Gopal –Ayengar 1957

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

Image file

16.Ploidylevel: Tetraploid (sexual)[4, 7, 13, 16]

Wagner, F. S. 1993. Chromosomes of North American grapeferns and moonworts (Ophioglossaceae: Botrychium). Contr. Univ. Michigan Herb. 19: 83–92.

Kurita, S. 1986. Chromosome studies on South American pteridophytes (1). In: Contributions to the Botany of the Andes. (II) 47–67.

90 [4, 13]

Gopal –Ayengar 1957

Niizeki, Nishida & Kurita 1963

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

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.):