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**DEPARTMENT OF BOTANY**

**U.R. COLLEGE ROSERA  
(SAMASTIPUR)**

**B.Sc. PART- I**  
**PAPER- II, GROUP- [B]**

**(i) MORPHOLOGY OF**  
**OPHIOGLOSSUM.**

Morphology of Ophioglossum

Classification

Division → Cryptogam

Sub-division → Pteridophyta

Group → Eusporangidae

Class → Ophioglossidae

Order → Ophioglossales

Family → Anachoropteridaceae  
(Ophioglossaceae)

Genus → Ophioglossum

Ophioglossum [ophida: snake] is called  
[glossa: tongue]

Adder's tongue. Adder is a small  
venomous snake known as Viper a berus.

Ophioglossum is taken up first as  
it is the commonest, although it is  
possibly more advanced. Clowen (1938)  
recognized only 28 species but  
Reimers in Engler's Synobus (1954)  
recognizes 45 species. The species may  
be divided into the sections Euophio-  
glossum, Rhizoglossum (O. bergianum),  
Cheiroglossa (O. palmatum) and Ophio-  
deum (O. pendulum) and two other

Species.

(2)

Occurrence → The species are of world wide distribution in temperate as well as in tropical zones. Most of them grow on humus soil and are perennial although the aerial shoot may be annual. A few tropical species are epiphytes. There are about a dozen species of which *O. vulgatum*, *O. reticulatum* and *O. penduculosum* are very common. Other Indian species are *O. costatum*, *O. capense*, *O. gramineum* (a very small sps. of Maharashtra), *O. nudicaule*, *O. capense*, *O. aitchinsoni*, *O. lusitanicum*, *O. pendulum* (a large pendulous epiphytic sps) often grown in green houses, is known from South India and Ceylon.

### The sporophyte of *Ophioglossum*

The sporophyte has a short, vertical, subterranean rhizome. Several leaves develop spirally from the top. Numerous fleshy stout adventitious roots grow from the base of the rhizome and there are increased by one root growing from the base of every leaf. Some of the roots grow horizontally



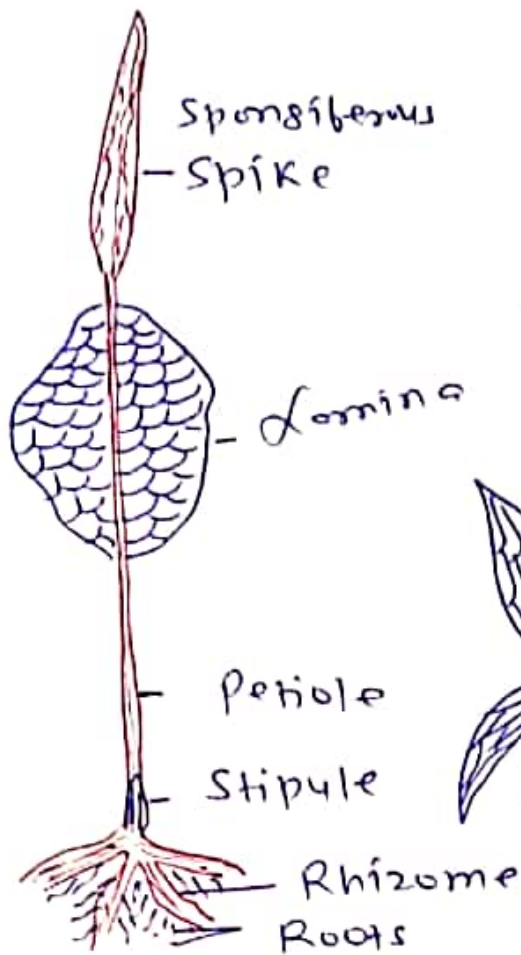


Figure - *O. vulgatum*

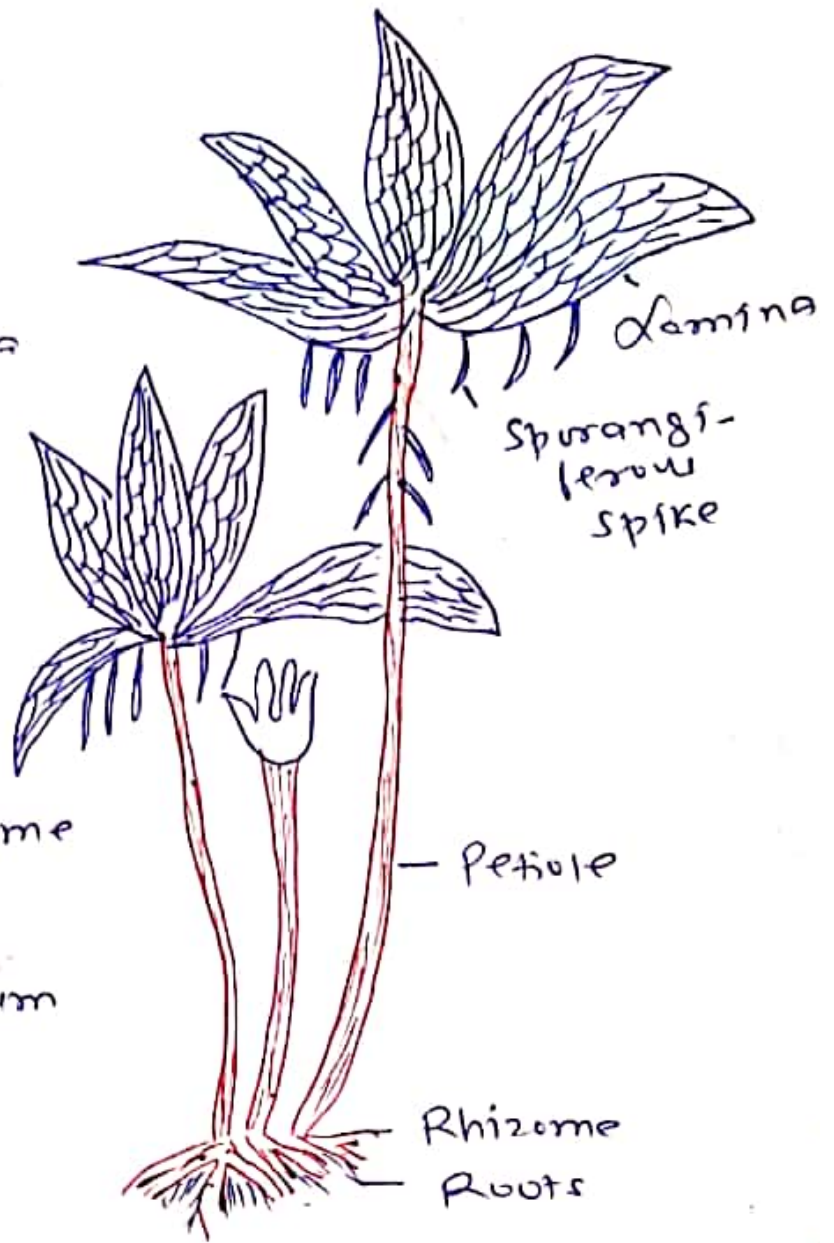


Figure - *O. palmatum*

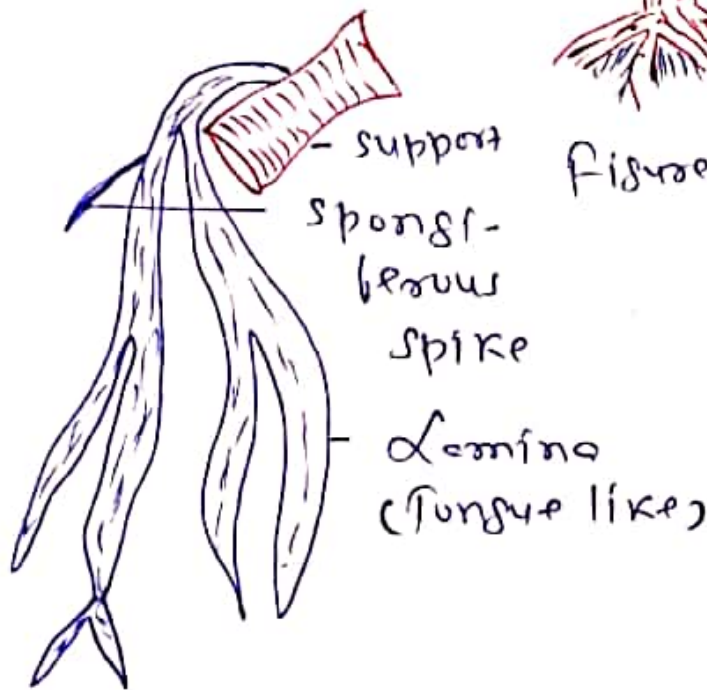


Figure - *O. pendulum*

Figure -> Morphology of different types of species of Ophioglossum.

like runners and young plants grow from buds on their upper surface. Each leaf has a thin stipule at its base. It is differentiated into a petiole and a lamina which does not show circinate venation. The venation is closed, reticulate with some finer veins ending blindly within the meshes. This is an advanced character. The lamina in most species is entire and linear to ovate. But in *O. palmatum*, growing on rotten wood, it is palmately dissected. In *O. pendulum*, an epiphyte with dorsiventral rhizome, the lamina is pendulous, narrow and dichotomously dissected truly like Adiantum.

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