

TP : 04 Pteridophytes

Introduction

Pteridophytes (pteron= feather, phyton= plant, i.e. plants with feather like leaves). A group of vascular plants that have roots, stems, and leaves. Pteridophytes do not produce flowers or seeds. Instead, they reproduce via spores, which are usually found on the underside of their leaves in specialized structures called sori.

They are classified as vascular cryptogams because they possess vascular tissues but reproduce without visible reproductive organs like flowers. Their life cycle is characterized by alternation of generations, involving a dominant diploid sporophyte phase (the fern plant we usually observe) and a smaller, independent haploid gametophyte phase (called the prothallus).

Pteridophytes typically thrive in moist, shaded environments where water is available for fertilization, as their sperm cells are motile and require a thin film of water to reach the egg. They play important ecological roles in forest understories and can be indicators of healthy, humid environments.

One of the most common and accessible species for study is ***Polypodium vulgare***, or common polypody, a fern widely distributed, often growing on rocks, walls, and tree trunks in temperate, shaded areas.

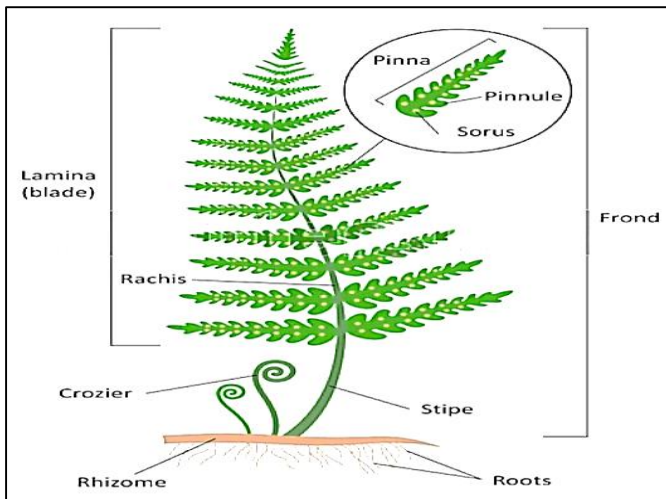


Figure : *Polypodium vulgare*

Classification:

- Kingdom: Plantae
- Division: Pteridophyta
- Class: Polypodiopsida
- Order: Polypodiales
- Family: Polypodiaceae
- Genus: *Polypodium*
- Species: *P. vulgare*

Objective:

To observe and identify the main morphological features of Pteridophytes.

Work to do:

Observe and draw a ***Polypodium vulgare*** fern plant.