

SEEDLESS PLANTS

# Ferns

360 MYA – PRESENT

Ferns, like lycopods, are vascular plants which reproduce with spores rather than seeds. They differ from lycopods by having true leaves. Ferns often expand new leaves by uncurling them in a process called circinate vernation.

Like most other land plants, some fern leaves are used for photosynthesis, but some leaves also produce the spores by which the fern reproduces. These spores can often be seen as brown patches on the underside of leaves.

Domain	Eukaryota
Kingdom	Plantae
Phylum	Polypodiophyta
Class	Polypodiopsida
Clade	Gymnosperm

## Fossil Record

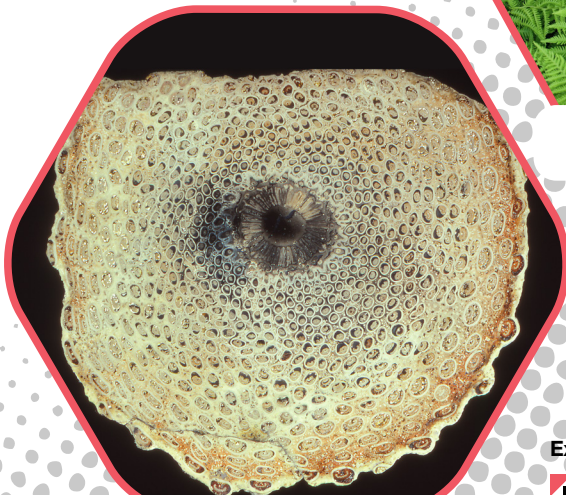
Ferns first appeared in the fossil record during the early Carboniferous about 350 million years ago and are widespread and successful today.

## Habitat and Lifestyle

Ferns live in a wide variety of habitats but tend to live in places where environmental factors limit the growth of angiosperms (flowering plants). Often ferns will be found in the undergrowth of damp shady forests, in swamps, or growing on trees, especially in tropical and sub-tropical rainforests.



A dense carpet of ferns.  
Image from Johan1127, pixabay.



A fern, *Neomariopteris sp.*, Late Permian (about 260 million years old), New South Wales.  
Image from Jim Frazier.

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## DID YOU KNOW

The commonly sold 'air-fern' is not actually a fern – it is not even a plant. It is the skeleton of a colonial animal called a hydrozoan, which is a relative of corals and jellyfish.

