

Domain	Eukaryota
Kingdom	Plantae
Clades	Angiosperm Gymnosperm

Spores and pollen

470 MYA – PRESENT

Releasing spores and pollen is the way most land plants (from mosses to eucalyptus trees) and some fungi reproduce. These tiny grains are only the size of dust particles but are produced in huge numbers and are often readily found as fossils.

Spores and pollen are very useful in determining the age of rocks that were deposited on land, in lakes, floodplains, and swamps.

Fossil Record

The oldest spores, which are thought to come from non-vascular land plants such as mosses and liverworts, have been found in rocks deposited during the middle Ordovician about 470 million years ago. The oldest pollen from seed plants is found in the late Devonian about 385 million years ago.

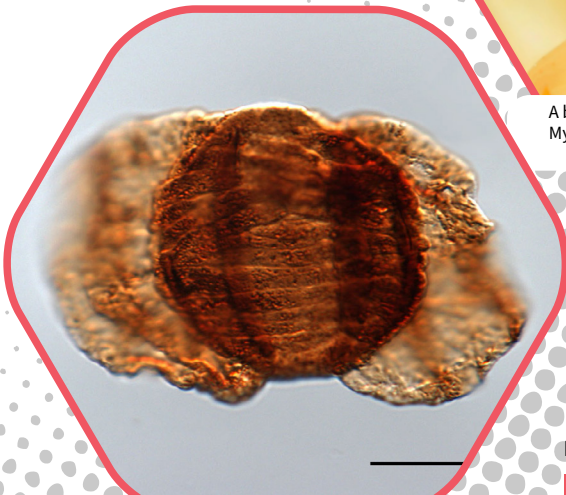
Habitat and Lifestyle

Spores and pollen are usually dispersed by the wind or by water and in some cases by insects. Plants or fungi that rely on insects for pollination, attract them by being brightly coloured or by releasing enticing scents.

Conifers and other non-flowering seed plants usually rely on the wind to distribute their pollen.



A bee covered in pollen. Image from Myriam-Fotos, pixabay.



A southern beech pollen grain, *Nothofagidites emarcidus*, Miocene (about 20 million years old), Queensland. Image from Dan Mantle, Geoscience Australia.

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DID YOU KNOW



If you get a runny nose and the sneezes during September to November every year, chances are you are suffering from hay fever – an allergic reaction to pollen in the air you breathe. In Australia, September to November is the peak season when many of the flowering plants release their pollen to the air. Most cases are caused by the pollen from grasses, which are technically flowering plants.