

SEED BEARING PLANTS

# Cycads

280 MYA – PRESENT

Cycads are trees with short, thick trunks and a crown of large frond-like leaves. They are sometimes mistaken for tree ferns or palm trees but are not closely related to either.

Some cycads, *Macrozamia sp.* have been planted near the rear entrance to the Geoscience Australia building in Canberra.

Domain	Eukaryota
Kingdom	Plantae
Phylum	Cycadophyta
Class	Cycadopsida
Order	Cycadales

## Fossil Record

Cycads first appear in the fossil record in rocks from the early Permian. There are some fossils from the late Carboniferous that may be cycads, but their true species remains uncertain.

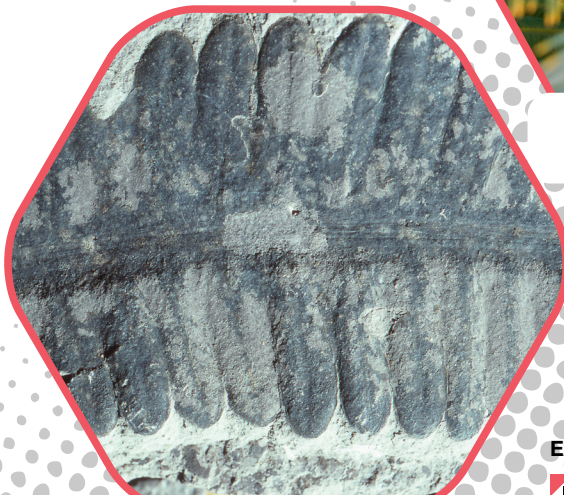
## Habitat and Lifestyle

Cycads are found throughout the tropics and subtropics. They grow very slowly, and some cycads have been found to be almost 1000 years old. Like palm trees, their fronds grow directly from the trunk and fall when older, leaving an impressive crown of leaves at the top of the trunk.

When the plant is mature, a cycad grows a cone from the top of the trunk. This cone is either male and produces pollen, or female and produces seeds.



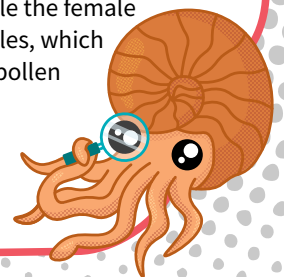
A female cycad, *Macrozamia sp.*, outside Geoscience Australia, Canberra. Image from James Cropper, Geoscience Australia.



A cycad frond, *Cycadopteris scolopendrina*, Triassic (about 230 million years old), New South Wales. Image from Jim Frazier.

## ? DID YOU KNOW

Cycads are either male or female and the cones produced by each are different in size, shape, and sometimes colour. Male cones produce pollen while the female cones produce large ovules, which when fertilized by the pollen develop into seeds.



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