

# Triassic Cycadales

The Triassic period was a time of recovery, transition and diversification for much of the Earth's surviving life forms. A major global extinction caused in part by changing continental positions and redirected ocean currents has just occurred. The world was leaving an ice age, warming and plant life was having to adapt to a predominantly warm, dry climate. Many once dominant species faded to mere niche holders. Others found new opportunity. The cycads and their allies seized the day.

One of these new plants was *Aricycas paulae*, whose fossil leaves have been found in Arizona. Its leaves possessed a slender rachis and long narrow pinnae with a mid rib. The epidermal structure and stomata more resistant to water loss mark it as a Cycadale. There is a very strong resemblance to modern-day *Cycas*. Some reproductive structures have also been found similar to

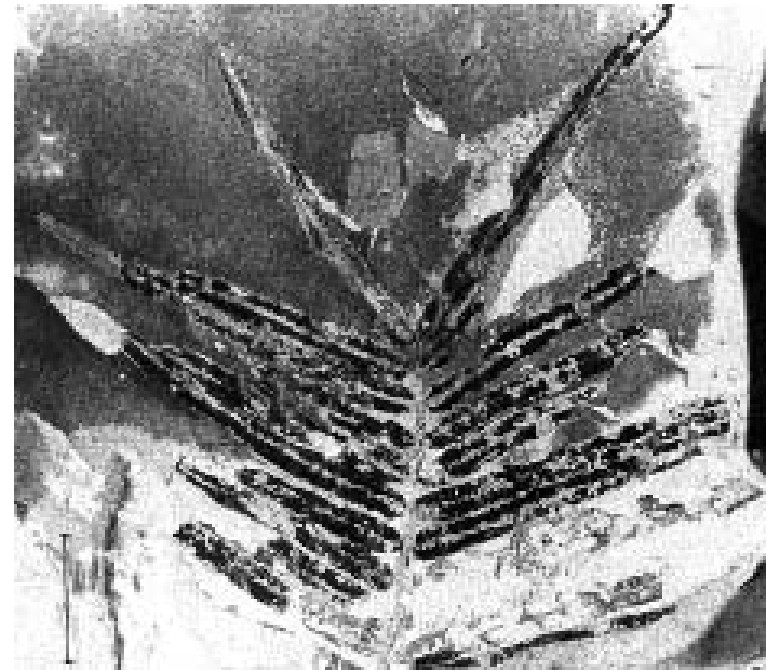
the Cycadale form, but it's not possible yet to attribute these fossils to *Aricycas*. Another possible precursor to *Cycas* was found in Triassic sediments in Antarctica. *Antarcticycas schopfii* consists of small fragments of stem, about 14 c, long. One stem is branched.

The Cycadales had competition, of course. Cycadeoids and the *Williamsonia* both found this new warm climate equally to their liking. Judging from fossils found so far, during the Mesozoic they may have actually been more populous than the Cycadales.

A Cycadeoid being enjoyed by *Heterodontosaurus*, one of the dinosaurian locals of that time



John Sibbick



*Aricycas paulae*  
Arizona, Upper Triassic



Douglas Henderson

In foreground, *Lyssoxylon grigsbyi*, an early Cycadale, New Mexico, Upper Triassic