

R Nature Notes

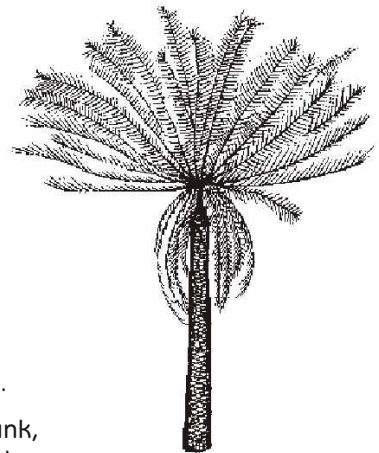
Junior Ranger

CYCADS -

SENIOR CITIZENS OF THE PLANT WORLD

Cycads are the oldest living group of seed producing plants in the world. They have been around for at least 250 million years; long before dinosaurs came on the scene! But unlike the dinosaurs, we can still see them today!

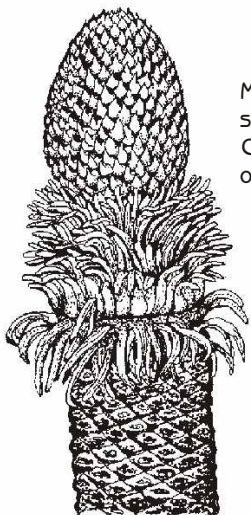
Cycas armstrongii has the typical cycad look.



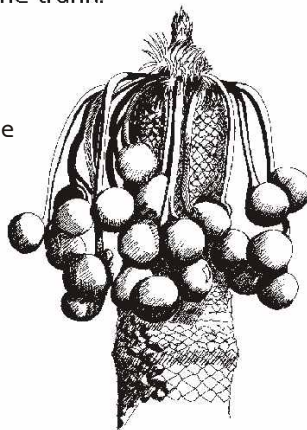
DON'T CALL ME A PALM!

Cycads have single (sometimes branched) trunks that are rarely bigger than 3 metres tall, topped with feather-like leaves. This makes them look a bit like a palm tree, but they are not actually related at all. One big difference is that palms have flowers while cycads do not. Besides, the palm family are 'youngsters' that have only been around for 70-80 million years.

Cycads have separate male and female plants. The boys grow a large cone on top of their trunk, which produces pollen. The girls grow a cluster of finger like stalks. At first, they grow upwards together to form a sort of cone shape. But when the nuts (or seeds) start to grow and get heavy, they droop down around the top of the trunk.



Male cone (left) and female seeds (right) of *C. armstrongii* are typical of NT Cycas species.



HANDLE WITH CARE

You might think these nuts look like a tasty bush tucker treat, but be warned! They are extremely poisonous! Many animals can eat the outer flesh and many Aboriginal groups have worked out how to remove the poison from the seed and make cycad bread, but it's best to not even touch them!

THEY BUILT 'EM TOUGH IN THE OLD DAYS!

Cycads are built tough. No wonder they outlived the dinosaurs! Even if they are broken or burnt to the ground, they can often regrow from underground storage stems. Cycads have coped well with fire over thousands of years. They are usually the first plant to re-sprout after a fire. Their fresh green leaves really stand out against the blackened landscape.

Drought? Long dry season? No worries. Many cycads can 'play dead' and drop their leaves. But as soon as it rains, they spring back to life.

Poor quality soil where nothing can grow? Also not a problem.

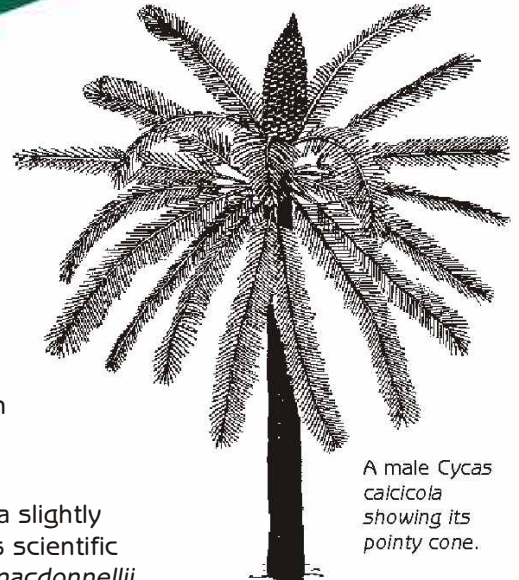
Cycads have built in 'fertiliser factories' in their roots. They absorb nitrogen (an important element of fertiliser) from the air to improve the soil.

DID YOU KNOW?

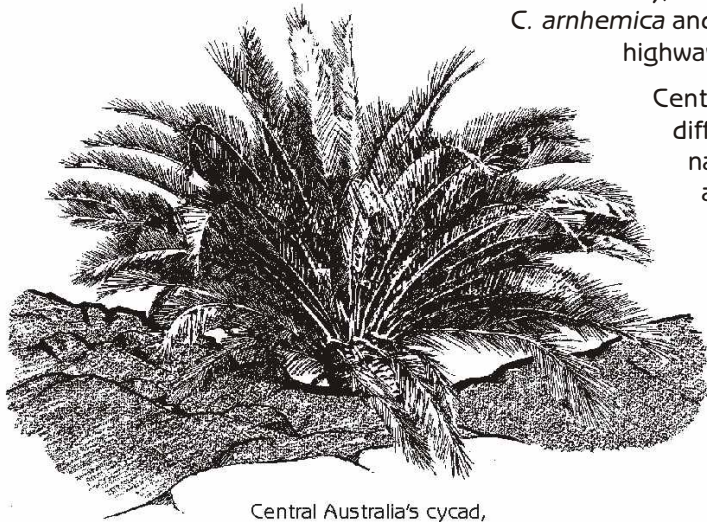
Many early explorers, including Captain Cook, Leichhardt and Stuart all discovered the hard way that cycads are poisonous. Luckily, none of their men actually died, they just got really sick.

GO SEE A CYCAD

Territorians are lucky to have so many species of cycad nearby. In fact, there are ten species of *Cycas* scattered across the Top End. Everyone from around Darwin should recognise their local *Cycas armstrongii*. If you live in Katherine, or have visited Litchfield National Park, you might have seen the grey-green leaves of *C. calcicola*. If you travel east of Borroloola you should see the giant *C. angulata* along the highway. They're hard to miss at up to 12 metres tall with trunks 60 centimetres across! And just south of Nhulunbuy, massive stands of both *C. arnhemica* and *C. orientis* line the highway.



A male *Cycas calcicola* showing its pointy cone.



Central Australia's cycad, *Macrozamia macdonnellii*.

Central Australians have a slightly different local cycad. Its scientific name is *Macrozamia macdonnellii*, and it is restricted to the rocky slopes and gorges of a few mountain ranges around Alice Springs. You can see them in places like Kings Canyon and throughout the Macdonnell Ranges.

Otherwise, you can see all of these and more by simply visiting the George Brown Darwin Botanic Gardens' Cycad Garden.

DID YOU KNOW?

The scientific name, *Cycas* comes from the Greek word *kykas*, which means palm.

Cycads have separate male and female plants. Scientists give plants that do this a special description. Complete this quiz and the word will be revealed in the boxes. All of the answers have been mentioned in this article. Good luck!

1. Female cycads produce _____
2. Extinct reptile
3. Don't touch cycad seeds because they are _____
4. Some Aboriginal groups make and eat cycad _____
5. Male cycads produce pollen in their _____
6. Cycads make their own fertiliser by absorbing what from the air?
7. The giant *Cycas angulata* can be found east of what town?
8. Cycads have single or branched _____
9. Cycads look similar to what type of plants?

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Want to learn more about Cycads?

Check out the web page <http://plantnet.rbgsyd.nsw.gov.au/PlantNet/cycad/>

It has pictures, maps and information on nearly every cycad in the world!