



The Glasshouse is by the main path 600 metres from the entrance.

ABOUT THE GLASSHOUSE

The new glasshouse was opened in July 2022 and comprises a warm tropical house, cooler shade house and an outside arid garden.

The temperature in the tropical house is maintained at around 32 Celsius and uses passive solar heating from its big north facing windows, supplemented by a heating unit on winter days and nights. The shade house is open to the outside air and mimics the conditions under a rainforest canopy to protect plants from extreme temperature variations. Both areas have extensive undersoil drainage and computer controlled micro spray and drip irrigation systems.



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 With acknowledgement to the Traditional Custodians,
 the Gumbaynggirr people, and their elders.

The Glasshouse

An Introduction to some Glasshouse Plants

North Coast Regional Botanic Garden - Coffs Harbour



The glasshouse provides special living conditions for warmth loving plants in the tropical house, and for shade loving plants in the shade house.

An arid garden is planted in the area near the entry path.

In the tropical house the tall **Lipstick Palm** (*Cyrtostachys renda*) with distinctive red trunks. It is native to Borneo and Sumatra where it grows in swampy areas along riverbanks and needs warm conditions to survive. Like many palms it prefers partial shade when young and thrives in full sunlight when taller.



On the ground below is the **Parasol Palm** (*Licuala orbicularis*) another rainforest plant from Borneo where it is used to make hats, wrap food and for thatch roofs. Its large leaves help the plant catch more light on the dark rainforest floor.



Unfurling its huge fronds, which can grow up to 7 metres in length, is the **King Fern** (*Angiopteris evecta*) - in the centre bed of the tropical house. It is found in rainforests from northern NSW to Queensland and beyond. The fronds have no woody tissue and are held up by the hydraulic pressure of the sap. Ferns are a very ancient line of plants - over 300 million years old.

Epiphytic orchids can be found growing all around the glasshouse on the tops of logs and attached to tree stumps and recycled rope.

Epiphytes anchor to trees and fallen logs where they collect water and nutrients from leaf litter and the air. Notice the exposed roots?



Orchids and bromeliads come in a huge variety of forms. Some grow in the soil, many on trees (epiphytes) and some on rocks (lithophytes). The pineapple is a terrestrial bromeliad grown in the soil.



Bromeliads produce spectacular long lasting flowersbut each plant only flowers once. It then produces 'pups' or offshoots to become new flowering bromeliads. Many store water at the base of a thick rosette of fleshy and sometimes spiky leaves – where insects can breed.

Unusual plants: dissolving insects or ready for space travel...



By the door of the tropical house are some carnivorous **Tropical Pitcher Plants** (*Nepenthes* genus) growing as a vine on the wall and in the soil below. Their 'pitchers' have a sticky fragrant liquid to lure insects inside. The lip of the jug is slippery to trap the insect inside and then it slowly dissolves in this liquid so the plant can absorb the extra nutrients, especially nitrogen. There are over

100 species of Pitcher Plant spread across Australia, PNG, SE Asia and Madagascar. Most are vines while some are epiphytes or grow in soil.



Plants in the **Anthurium** genus are popular as indoor plants – some with large red spathes or bracts surrounding the flower spikes such as *Anthurium pendulifolium*.

There are over 1,000 species of Anthurium from central and south America.



Some are very rare and all have large leaves. NASA has been testing these plants for space travel as their very large leaves can naturally filter and purify the air – removing ammonia, formaldehyde and other toxic gases.