

# Evolution of australian biota



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Evolution of Australian Biota A) Baragwanathia Baragwanthia fossils were first discovered in Yea, Victoria in 1875 and were first described as a lycopod which was derived from the Zosterophylls by Australia's eminent pioneer botanist, Dr Isobel Cookson in 1935. The Fossils of Baragwanthia are believed to date back to the Silurian times. Baragwanthia had long pores which were roughly 1-2 millimetres in radius and is densely covered in leaves that are 4cm in length. The stems could be up to 1 metre in length although this club moss is no longer living. Baragwanthia evolved from the water depending algae, What isn't clear is whether there was a single precursor land plant, and the evolutionary path that was followed between the algae and vascular land plants. It is thought that the vascular land plants probably developed from the Green Algae (Chlorophyta).

One extant species which is often cited is Fritschiella of the Charophyceae. Another uncertainty is whether the vascular plants and non-vascular plants had a common ancestor, or whether the vascular plants evolved from the non-vascular plants. Current thinking is that the Charophyceae contains a common ancestor for tracheophytes and bryophytes. Casuarius Casuarius Johnsonii The Casuarius Casuarius Johnsonii or the Southern Cassowary is the heaviest flightless bird found in Australia. The southern cassowary is found in tropical rainforests and swamps of Northern Queensland.

The cassowary has course like feathers, with a tall brown helmet like casque on its head and one of its 3 toes has a dagger shaped claw for scratching and fighting. The Cassowary can grow up to 2 metres tall and weigh up to 76 kilograms. Cassowary fossils are very uncommon due but some have been dated back to the Miocene period and were found the Northern Territory

although, local inhabitants are known to have traded live cassowaries for hundreds, if not thousands, of years, some of which are likely to have escaped/been deliberately introduced to regions away from their origin. The Southern Cassowary is currently still a living species although is endangered with very little remaining in the wild. The Cassowaries digestive system has evolved over time to help them cope with toxins in some fruits to which they consume. Although the Southern Cassowary and the well-known emu are very similar it is hard to tell just how alike they are due to individual variations; e.

g few available specimens and age related variations. Diprotodon Optatum Diprotodon optatum also known as the giant wombat was the largest marsupial known. The oldest fossils of the giant wombat are from the Pliocene deposit in Fishermans Cliff, New South Wales. The Giant wombat became extinct 250,000 years ago. Exact reasons for the extinction of Diprotodon remain unclear.

It seems to have co-existed with Aboriginal people for over 20,000 years, so the 'blitzkrieg' model (extinction upon the arrival of humans) does not hold for Diprotodon. The Diprotodon optatum could grow up to 3.8 metres long and 1.7 metres wide at the shoulders.

The giant wombat preferred living in semi-arid plains, savannahs and open woodlands, and is generally absent from hilly, forested coastal regions but is also known for its liking of coastal locations. Many experiments have confirmed that the Diprotodon Optatum and the Common Wombat are related due to similar feet, skull and jaw shapes. B) The resources I used for

this assessment were found to be reliable and valid. I cross-checked all sources to ensure that the data matched up and if it didn't I looked deeper into the topic. I stuck to websites with a good reputation like museums rather than relying on sites like Wikipedia. C) Bibliography Websites Nan Crystal Arens, Encyclopedia Britannica, last accessed: 15/08/13, URL: [http://www.](http://www.britannica.com/EBchecked/topic/52553/Baragwanathia)

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