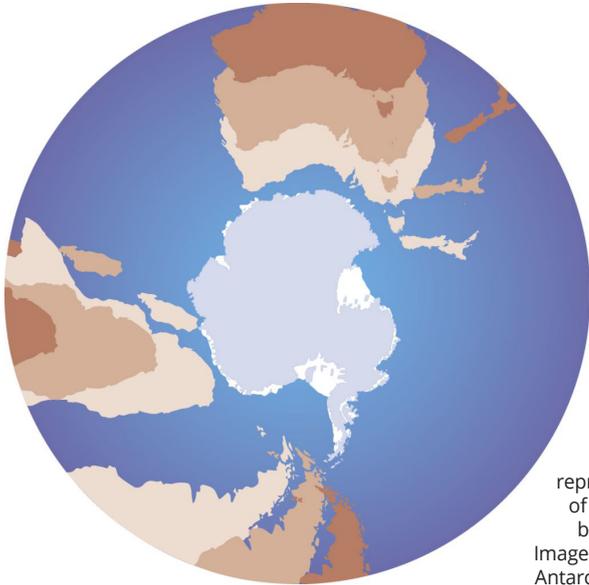


Did you know — Australia was once joined to Antarctica and Mt Wellington in Tasmania was once one of the mountains in the Transantarctic Alps.

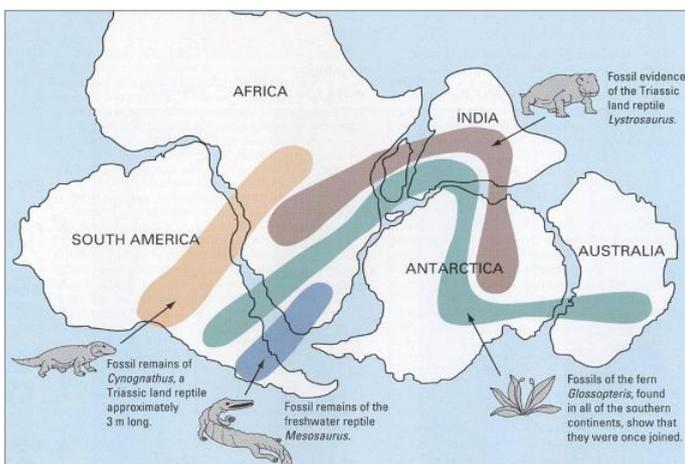


Pictorial representation of Gondwana breaking up. Image: Australian Antarctic Division

Gondwana - an ancient supercontinent.

Antarctica was once part of the supercontinent Gondwana which included: South America, Africa, Madagascar, Australia as well as the Arabian Peninsula and the Indian Subcontinent. At that time parts of Antarctica were on the equator and the climate was very different.

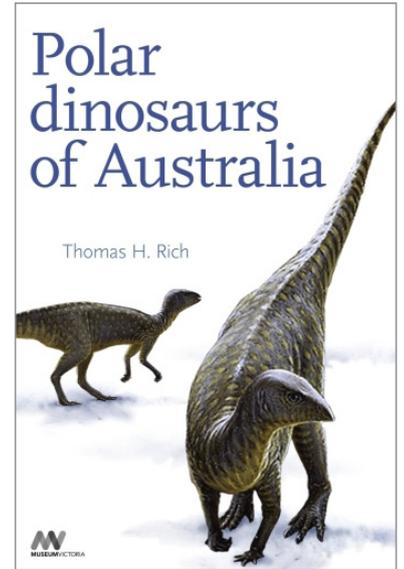
Antarctica has yielded fossils of dinosaurs, amphibians and even marsupials. The separation of Gondwana started slowly at first at a rate of only a few millimetres a year. This accelerated to the present rate of 7 cm a year. Australia completely separated from Antarctica about 30 million years ago.



Polar Dinosaurs

There is evidence that polar dinosaurs thrived during the Early Cretaceous period (145–100Ma) while the continent of Australia was still linked to Antarctica.

Mount Kirkpatrick, located only 600 km from the present day South Pole holds one of the most important fossil sites in Antarctica. Fossils include tritylodonts, herbivorous mammal-like reptiles, a crow-sized pterosaur and numerous dinosaur remains. Cryolophosaurus, a large predatory dinosaur, was the first dinosaur scientifically named in Antarctica.



Polar Dinosaurs of Australia

Thomas Rich and Patricia Vickers-Rich, have written a book about the Cretaceous period, when southern Australia was still connected to Antarctica and polar dinosaurs lived in what is now Victoria. With extended darkness for much of the year, the dinosaurs battled it out in icy winter temperatures that potentially dipped to -32 °C.

Activity:

- What is "Plate Tectonics"?
- How do continents move?

Use Google Earth to investigate the mid ocean rift between Australia and Antarctica.

Want to know more?

<http://www.antarctica.gov.au/about-antarctica/environment/geology/antarctic-prehistory>

<http://www.abc.net.au/catalyst/stories/2366874.htm>

Gondwana fossil map | Image: USGS public domain