

# Factsheet 19 – Why are dinosaur fossils being found in the Outback?

## Quirky fact :

The *Muttaborrasaurus* was the first dinosaur in Australia to be cast and mounted on display.

## Australian Curriculum Links

Year	Subject	Curriculum Links
5	Science	ACSHE081
6	Science	ACSSU094, ACSHE098
7	Science	ACSSU111, ACSHE119
8	Geography	ACHGK050
	Science	ACSSU153, ACSHE134

## Background Information

The discovery of dinosaur remains dates back to 1865 when James Sutherland unearthed an ichthyosaurus on the Flinders River. The pieces of vertebrae were sent to the Museum of Victoria where their discovery was briefly noted in 1867. While waiting on the museum's findings, Sutherland continued to uncover a more complete specimen, including a skull and many more vertebrae. Again, these were sent to Melbourne for further study. Despite a second paper in 1869 describing the new material, it was not until 1984 that Dr Mary Wade of the Queensland Museum published the finding of two skulls present in the material. Other palaeontology discoveries in the area include:

- 1888 – other ichthyosaur material described as *Ichthyosaurus Marathonensis* was found at Marathon Station, east of Richmond.
- 1899 – a scrap of a large reptile jawbone was identified by the Queensland Museum as the giant plesiosaur *Kronosaurus*.
- Some 40 kms outside Hughenden a pterosaur skull and jaw fragment were found.
- 1962 – a *Muttaborrasaurus* was collected from many fragments in a cattle yard on the Thomson River near Muttaborra. Many pieces had been souvenired by locals, but a public appeal soon saw these handed in to the museum. Throughout the 80s there were several other *Muttaborrasaurus* finds around Hughenden, the most recent being in 1987 when Dr Mary Wade discovered a second *Muttaborrasaurus* skull.
- 1989 – One of the world's best examples of an ankylosaur was found by Ian and Rob Ievers on Marathon Station at *Minmi* Crossing East of Richmond. The *Minmi* find is more than 90 per cent complete.
- 1989 – The most complete skeleton of a Cretaceous pliosaur was also discovered on Marathon Station.

## Sauropods

Sauropods are very large plant-eating dinosaurs with long necks and tails. Since 1932, the fossil bones of several individual sauropods have been found in the Flinders region of Queensland. They probably belonged to *Austrosaurus*. The remains of an *Austrosaurus Mckillopi* were discovered by the McKillop family on Clutha Station west of Richmond, in 1932, and were dated to be 100 million years old. Half of a cervical (neck) vertebra from another sauropod was found near Hughenden. It is similar to the vertebra of *Brachiosaurus*, a huge sauropod with long forelegs found in Africa and North America. The Queensland animal is known as the 'Hughenden sauropod'. The size of the bones found suggests an animal 20 – 22 metres long and perhaps weighing up to 50 tonnes. It used its long neck to reach the lower branches of the trees.

## Muttaborrasaurus

*Muttaborrasaurus Langdoni* roamed the Australian landscape approximately 100 million years ago during the Cretaceous Period. This dinosaur is thought to have been quite common and four specimens have been found in central and northern Queensland. *Muttaborrasaurus Langdoni* was first discovered in 1963 by grazier Doug Langdon, whose property was in the Channel Country of the Thomson River just outside the town of Muttaborra.

A museum team collected five tonnes of rock material from the site and transported it to Brisbane. It took many years of painstaking work to piece together the bones and the study of the animal is still not complete. The team has no real idea of the environment in which *Muttaborrasaurus* lived because all four specimens from Queensland have been found in an area that was once covered by a vast inland sea.

## Inquiry Questions

Subject	Years	Questions
Science	5/6	What evidence do fossils give of how the landscapes and environment have changed?
	7/8	How do scientists collect and analyse evidence, including fossils and minerals?
Geography	8	What can you find out about how a landform was produced?

## Points of Interest

- **Flinders Discovery Centre, Hughenden**  
www.flinders.qld.gov.au
- **Kronosaurus Korner, Richmond**  
www.kronosauruskorner.com.au
- **Dinosaur Stampede at Lark Quarry Conservation Park**  
www.dinosaurtrackways.com.au/home
- **Riversleigh Fossil Fields, Boodjamulla (Lawn Hill) National Park**  
www.outbacktisa.com.au/Attractions/Riversleigh-Fossil-Centre.aspx
- **Australian Age of Dinosaurs, Winton**  
www.australianageofdinosaurs.com
- **Outback Gondwana Foundation, Eromanga**  
www.ogf.org.au



## ADDITIONAL RESOURCES

**Queensland Museum**  
Phone: (07) 3840 7555  
Email: inquirycentre@qm.qld.gov.au  
www.qm.qld.gov.au/Find+out+about/Dinosaurs+and+Ancient+Life+of+Queensland

**Australian Museum**  
Factsheet on Muttaborrasaurus  
www.australianmuseum.net.au/  
Muttaborrasaurus-langdoni/

**Australian Dinosaur Trail**  
www.australiasdinosaurtrail.com/

**ABC**  
www.abc.net.au/dinosaurs/meet\_the\_dinos

**ABC – The Age of Reptiles**  
www.abc.net.au/science/ozfossil/  
ageofreptiles/eromanga/kronosaurus.htm

**Australian Museum**  
Research Library enquiries:  
Phone: (02) 9320 6152  
Scientific enquiries:  
Phone: (02) 9320 6202

**Australian Dinosaur Story**  
Australian Government Department  
of Sustainability, Environment, Water,  
Population and Communities  
Email: heritage@environment.gov.au  
www.environment.gov.au/node/19647

## REFERENCES

**Flinders Discovery Centre**  
www.flinders.qld.gov.au

**Queensland Museum**  
www.qm.qld.gov.au

## FURTHER INFORMATION

**Flinders Discovery Centre**  
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