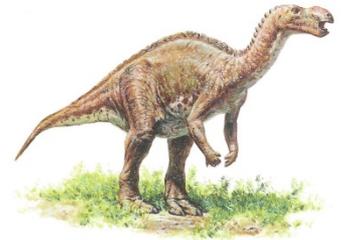


DISCOVERIES OF HUGHENDEN

James Sutherland made the first discovery of an *Ichthyosaurus* in 1865 on the Flinders River. The specimens of *Ichthyosaurus* vertebrae were sent to Prof. Frederick Mc Coy at the Museum of Victoria in Melbourne, who described them in a short note in 1867. James Sutherland returned to his site and uncovered a more complete specimen, including a skull and many more vertebrae, which again were sent back to Melbourne for Prof. Mc Coy to study. Despite Prof. Mc Coy's second paper describing the new material (dated 1869), it was not published that two skulls were actually present in the material until 1984 by Dr Mary Wade of the Queensland Museum.

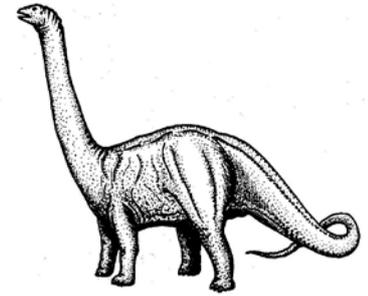
- Other *Ichthyosaurus* material was found at Marathon Station (approx 64km west of Hughenden) described as '*Ichthyosaurus Marathonensis*' in 1888.
- In 1899 A. Crombie of Hughenden gave a scrap of a large reptile jawbone to the Queensland Museum. Heber Longman, palaeontologist at the Queensland Museum, later described this as the giant Plesiosaur Kronosaurus.
- In 1963 a *Muttaborrasaurus* was collected from many fragments in a cattle yard on the Thompson River near Muttaborra. Many other pieces had been souvenired by locals, but a public appeal soon saw these returned to the museum. The cereal company Kellogg's sponsored the lengthy job of preparing the skeleton for public display in museums around Australia. There have been several other *Muttaborrasaurus* finds around Hughenden, the most recent being in 1987.
- Sometime after the 1960s a large *Sauropod* fossil, *Austrosaurus*, was found on a property approximately 75kms north of Hughenden.
- Approximately 40kms outside of Hughenden a Pterosaur skull and jaw fragment was found. They are in the Queensland Museum in Brisbane
- In 1989 a complete skeleton of a *Pliosaur* was found west of Hughenden.
- In 1981 one of the best examples of an *Ankylosaur* was found on the outskirts of Hughenden. This *Minmi* is the best dinosaur skeleton in Australia, being over 90% complete. It was found on the same station as the *Pliosaur*, by the same man, Ian Ievers, in the Flinders Shire. This is on display at Kronosaurus Korner in Richmond.



Hughenden Sauropod

Sauropods are very large plant-eating dinosaurs with long necks and tails. They have been found in this part of Queensland since 1932. Fossil bones have been found from several individual *Sauropods*. They probably belonged to *Austrosaurus*.

The remains of an *Austrosaurus Mckillopi* were discovered by Henry Burgoyne Wade the overseer on Clutha Station (Richmond) in 1932, and were found to be 100 million years old.



In 2003, half of a cervical (neck) vertebra from another *sauropod* was found near Hughenden by local woman, Jesse Boon. It is similar to the vertebra of *Brachiosaurus*, a huge *sauropod* with long fore-legs 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 tonne. It used its long neck to reach the lower branches of the trees.

Muttaburrasaurus

Muttaburrasaurus Langdoni roamed the Australian landscape approximately 100 million years ago. This dinosaur is known from four specimens from the central and northern Queensland and is believed to have been quite common during the late early Cretaceous Period.

Bones from a *Muttaburrasaurus* were first discovered in 1963 on a property by a grazier Mr P Langdon. The discovery site was in the channel country of the Thomson River about 5 km south-east of the town Muttaburra and about 1.5 km north-west of Roseberry Downs homestead. A Museum team collected five tonnes of rock material from the site, which was transported to Brisbane – first by truck to Longreach and then south by train. It took many years of painstaking work for Museum scientists to piece the bones together, and study of the animal is still not complete.

Muttaburrasaurus was approximately 7 m long from snout to tail and walked on its hind legs, but probably spent much of its time browsing, or resting on all fours.

Ornithopods have been found on all continents and lived from about 210 to 65 million years ago. In general, they were plant-eating dinosaurs which moved on their hind legs (bipedal). The ornithopods were also known as 'beaked' dinosaurs because they usually had horny 'beaks', instead of teeth at the front of their mouths.

Muttaburrasaurus was believed to have had a spiked thumb on each hand – a characteristic of another group of ornithopods, the *Iguanodontids*. This spike was originally thought to have been used as a weapon, but upon closer inspection the evidence proved inconclusive. The position of the animal was not as close to *Iguanodontids* as it seemed, before the group was as well known as it is now.

One of the most distinctive features of *Muttaburrasaurus* was an inflated, hollow bony chamber on the animals' snout. The bones in this area were much thinner than the rest of the skull, and there were probably internal partitions inside the chamber – at least two; one on each side of the head.

Scientists do not know why the hollow chamber existed or what the function of the partitions may have been, but there are several possibilities:

- The chamber may have enhanced the animal's sense for smell and
- It may have been a resonating chamber that enabled the animal to make a lot of noise.

Scientists have no real idea of the environment in which *Muttaburrasaurus* lived because all four specimens from Queensland have been found in an area that was once covered by a vast inland sea. The rainfall on the land where they lived was about 1m per year.

One feature, which set the *Muttaburrasaurus* apart from other ornithomimids, was its distinctive teeth. In most other dinosaurs and many reptiles such as crocodiles today, the teeth are replaced one by one so that the bite line is uneven on either jaw. In *Muttaburrasaurus* the teeth were all replaced at the same time so the upper and lower jaws fitted together evenly. When the animal's mouth was closed, the teeth came together in such a way that they acted like a pair of shears.

The back of the skull was also significantly larger than in other related dinosaurs. This increased area would have been covered with a correspondingly large amount of muscle tissue, which probably gave *Muttaburrasaurus* a stronger bite.

This, and the 'shearing' action of the teeth, may have meant that *Muttaburrasaurus* fed on tougher plants than other herbivorous dinosaurs (perhaps the spiky fronds of cycads).

At least four specimens have been found in Queensland (the second near Hughenden in 1987, and fragments of two on Iona, also near Hughenden). Two teeth have also been recovered from Lightning Ridge in New South Wales, and one or more in Victoria. The locations where *Muttaburrasaurus* fossils have been found suggest the animal may have had the widest range of any dinosaur in Australia.