Australian Megafauna

13 Prehistoric Giants of Australia
Megafauna

Megafauna are gigantic creatures that lived a long time ago. The fossils of these animals have been found all over Australia, with over 50 sites on the Darling Downs in Queensland.

These creatures became extinct many years ago and no one is absolutely sure why. Some reasons that have been suggested are:

- hunting by humans
- fire may have changed their habitat
- climate change could have changed their habitat
Diprotodon

Pronounced: di-pro-toe-don

The Diprotodon is believed to be the biggest marsupial that has ever lived. It is thought that this marsupial had a short, trunk-like snout.

This marsupial is one of the most well known of the megafauna. It was widespread across Australia before becoming extinct. It seemed to prefer living in semi-arid plains, savannahs and open woodlands.

It was a heavily built, large-bellied quadruped. It had an oversized skull which was lightweight and filled with numerous air spaces. The Diprotodon had two forwardly directed lower incisors and three upper incisors. They had four large molars with two transverse crests on each tooth.

The limbs of the Diprotodon were sturdy and pillar-like with the upper limbs bones being longer than the lower ones. Their feet were small for the size of the creature and were inturned as in wombats.

The Diprotodon was most likely a browser, feeding on shrubs and forbs, eating as much 100-150kg of vegetation a day.

Facts

Scientific Name: Diprotodon optatum
Size: up to 3.8 m long (head to tail)
Weight: up to 2800 kg
Diet: plant-eater
Found: in many parts of Australia
Euryzygoma

The Euryzygoma was a large, marsupial with unusual, flaring cheekbones that may have been used for storing food. This animal was a browser, feeding on leaves and shrubs. It was closely related to the massive Diprotodon.

The snout of the Euryzygoma was deep but very narrow and their skull was wider than it was long which was unusual. It appears that it was the male that had larger cheekbones than the female and may have used these for sexual displays.

These large marsupials, lived in warm temperate eucalypt forests where the rainfall was high.

Facts

Scientific Name: Euryzygoma dunense
Size: 2.5m long (head to tail)
Weight: 1700 kg
Diet: plant-eater
Where found: eastern Australia
Zygomaturus

Pronounced: zy-go-mah-tu-rus

The Zygomaturus was not quite as big as the Diprotodon and more likely lived in wetter forest areas. On the skull of a Zygomaturus that has been found, there were bumps near the nose.

This marsupial probably lived in the wetter areas of Australia, feeding on clumps of reeds and sedges it shovelled up with its two fork-like front incisors. The raised nostrils would have been an advantage to the animal when it was feeding in the water.

Facts

Scientific Name: Zygomaturus trilobus
Size: 2 metres long (head and body)
Weight: up to 500kg
Diet: plant-eater
Where found: eastern Australia
Procoptodon

Pronounced: pro-cap-toe-don

The Procoptodon is similar to the kangaroos of today, except it was a lot bigger. It was massive, with a very short, flat face and forward-looking eyes. The lower jaws were massive and fused or ankylosed. Both upper and lower incisors were small and were used to nip vegetation. Its complex teeth tell us that it was a browser rather than a grazer.

The Procoptodon also had a single large toe on each foot and each hand had two long, clawed fingers that would have been used to bring leafy branches within reach.

These creatures had unusually long and mobile forelimbs. The two middle fingers were elongated with long, recurved claws which would form a ‘grapping hook’ to grasp leafy branches.

At the end of their tow was a hoof-like claw which may have been used to give this kangaroo a greater measure of speed.

Standing at a height of about 2 metres tall, the Procoptodon would be comparable in height to a large red kangaroo but it would have been more robust in build, about two and a half times as heavy.

Like all marsupials, the Procoptodon would have had tiny, hairless young that developed in a pouch after birth.

Facts

Scientific Name: Procoptodon goliath
Size: up to 2 metres tall
Weight: up to 200 kg
Diet: plant-eater
Where found: eastern Australia
The Genyornis was a large, flightless Mihirung (thunder bird) bird. It had great, long running legs.

Skeletons of these huge birds have been found in central and southern Australia. They have been found in large numbers at some fossil sites, which suggests that they may have lived in flocks.

These creatures lived in arid grasslands and woodlands with some of their fossilised egg shells being found in the deserts of Central Australia. These eggs were large, weighing up to 1.6 kg and had a smooth texture.

This tall bird had tiny wings and massive hind legs. They had an enormous, hard beak and no teeth. Scientists are not sure what these birds ate, but they do know that they had grinding stones, called gastroliths, in their stomachs to help them grind up food. It is thought that they were herbivores.

**Facts**

- Scientific Name: Genyornis newtoni
- Size: 2 metres tall
- Weight: up to 220 - 240 kg
- Diet: uncertain, possibly plant-eaters
- Where found: in many parts of Australia
The Thylacoleo, also known as the marsupial lion, was Australia’s largest meat-eating marsupial. It was a large and well-equipped killer with a huge claw on the thumb of each front paw which were most likely used for grasping and slashing prey.

It is thought that the Thylacoleo ambushed its prey rather than chasing it down. Its jaws feature large cheek teeth that are used for slicing flesh. Teeth marks from the Thylacoleo have been found on diprotodon bones, so it is safe to say that it ate large plant-eaters. Studies on their bite strength suggest that the Thylacoleo had the most powerful bite of any mammalian predator which would mean that it could take on prey much larger than itself.

The Thylacoleo had a wide, heavy, short-snouted skull. The limb proportions of this creature suggest that it was adapted for running but it was not very fast. Its pseudo-opposable thumb suggests that it may also have been able to climb.

Most of the sites where this creature has been found are dry, open forest habitat.

**Facts**

Scientific Name: Thylacoleo carnifex  
Size: 1.5 metres long (head to tail)  
Weight: 90 – 160 kg or more  
Diet: meat-eater  
Where found: in many parts of Australia
Megalania

Pronounced: meg-ah-lane-e-ah
The Megalania was a really huge meat-eating reptile. Although it looks like a goanna, it was really massive at up to 5 metres long. It is the largest goanna to ever have lived.

This lizard probably caught its prey using its strong jaws. They may also have scavenged for dead animals in the woodlands and grasslands where they lived.

At its maximum length, the Megalania was 5 metres long making it on of the largest predators in its time. Like the komodo dragons of today, these massive creatures most likely had bacteria infested mouths that produced a septic bite.

Facts

Scientific Name: Megalania prisca
Size: up to 5 metres long
Weight: 400 kg
Diet: meat-eater
Where found: southern parts of Australia
Wonambi

Pronounced: won-am-bee

The Wonambi was a large, non-venomous snake that lived in southern Australia. They would grow up to 6 metres long and had a rather thick body. This massive snake would have killed its prey by constriction. It was able to eat animals as big as a wallaby.

The name, Wonambi, is an Aboriginal name for the Dreamtime rainbow serpent.

The fragile bones of a snake do not make good fossils. The ones of the Wonambi that have been found, were found in caves in South Australia and Western Australia.

Facts

- Scientific Name: Wonambi naracoortensis
- Size: 6 metres long
- Weight: around 100 kg
- Diet: meat-eater
- Where found: southern Australia
Thylacine

Pronounced: thy-lah-seen

The Thylacine was a dog-like marsupial carnivore with a long snout and molar teeth.

Over 10 species of Thylacine are now known to scientists. These creatures range in size from the size of a quoll to ones larger than the now extinct Tasmanian Tiger.

The last known species of Thylacine, the Thylacinus cynocephalus (Tasmanian Tiger) was ruthlessly hunted when Europeans first came to Australia. Due to this, the last known Thylacine died in Hobart Zoo 1936 and are now said to be extinct.

It seems that they preferred to live in subtropical open woodlands with their diet mainly consisting of wallabies, mammals, and birds.

Thylacines bred during winter and spring with their young born tiny and hairless, like in all marsupials. The pouch of the female faced to the rear with three young per litter. After they left the pouch, the young would remain in a protected nest or cave while the female hunted.

Facts

Scientific Name: Thylacinus potens
Size: about 2.25 m long (head to tail)
Weight: 38-39 kg
Diet: meat-eater
Where found: Australia
Liassias

The Liassias is the largest snake known from Australia, estimated to be about 9-10 metres in length. Its common name is Bluff Downs Giant Python. It was a large, bulky, slow-moving constrictor.

Like all other pythons, this was a non-venous constrictor that killed its prey by wrapping its coils around its prey and squeezing it until it suffocated. This creature probably ate mammals, birds and other vertebrates. The bones of the skull and lower jaw are highly moveable and the skin is elastic, in order for the creature to swallow large prey.

The Liassias species of snakes have teeth on the bone at the front of their snout, large symmetrical shields on their heads and pits in some scales along the side of their face.

The Liassias is known to live in wetlands that bordered sections of closed forest. It has isolated vertebrae and unusually high neural spines which indicate that it was arboreal (tree-dwelling).

Facts

Scientific Name: Liassias dubudingala
Size: about 9-10 m long
Diet: meat-eater
Where found: northeastern Australia
The Quinkana was a large crocodile that lived on land. Its long legs were able to support and carry their bodies clear off the ground, which made it a fast hunter. It was able to tire out its prey of mammals, birds and other reptiles in long chases.

This massive creature’s teeth had sharp blades, with serrated edges that it used to kill and cut up its prey. A bite from this animal would do a lot of damage to a softer bodied mammal. Even if the prey managed to escape the initial attack, it would succumb to shock and blood loss in a relatively short space of time.

**Facts**

- **Scientific Name:** Quinkana
- **Size:** 5-7 metres long
- **Weight:** around 200kg
- **Diet:** meat-eater
- **Where found:** north-east Australia

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The Meiolania was a 2.5 metre long turtle. It had an unusually shaped skull that support many horn-like protrusions on it. There are two large horns that faced sideways which would have prevented the animal from fully withdrawing its head into its shell.

It also had a club like tail that was protected by armoured rings and thorn-like spikes. These spikes may have been used for protecting the head and tail extremities from predators.

Feeding on plants, the Meiolania was rather large, and is one of the largest known nonmarine turtles to live. There is strong evidence that suggests these huge creatures were hunted to extinction by the Palita people many years ago.

**Facts**

Scientific Name: Meiolania  
Size: 2.5 metres long  
Diet: plant-eater  
Where found: Australia
The Dromornis was a huge bird, standing up to 3 metres tall and weighing up to half a ton. They had a long neck and stub-like wings that rendered it flightless.

It had powerful legs, though it is believed that it was not a very fast runner. The bird’s beak was large and immensely powerful which scientists believe was used to shear through tough plant stalks. It has also been suggested that the bird may have been an omnivore, feeding on plants but supplementing their diet with meat.

Though the Dromornis may look like a large version of the ostrich, studies reveal it to be more closely related to geese.

**Facts**

- **Scientific Name:** Dromornis
- **Size:** 3 metres tall
- **Weight:** up to 500kg
- **Diet:** plant-eater
- **Where found:** Australia
1. What is the name given to describe gigantic creatures that lived a very long time ago?
__________________________________

2. What are three reasons why these creatures may have become extinct?
   a. ________________________________
   b. ________________________________
   c. ________________________________

3. What is believed to be the biggest marsupial that have ever lived? __________________

4. Describe the Diprotodons skull. __________
   ____________________________________
   ____________________________________

5. What did the Diprotodon eat? ___________
   ____________________________________

6. The Euryzygoma was a large ____________ with flaring cheekbones.

7. Where did the Euryzygoma live? __________
   ____________________________________
   ____________________________________
8. What was found on the skull of the Zygomaturus? _______________________

9. Who feed on clumps of reeds and sedges that it shovelled up? __________________
   ____________________________________________________________

10. What creature is similar, though a lot bigger, to the kangaroos of today? ______________
    ____________________________________________________________

11. What did the Procoptodon young look like? _______________________________________

12. The Genyornis was a ________________________ , __________________________ thunder bird.

13. Describe the eggs of a Genyornis. ________
    ____________________________________________________________

14. What animal is also known as the marsupial lion? ______________________________

15. How did the Thylacoleo catch its prey? _____
    ____________________________________________________________

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16. What was the Megalania? ________________________________

17. Describe the mouth of the Megalania. ______
_____________________________________________
_____________________________________________
18. The Wonambi was a large, non-venomous
______________________________________________
19. How did the Wonambi kill its prey? ________
_____________________________________________
20. What is the name of the dog-like marsupial
carnivore? _____________________________
21. Describe the young of a Thylacine. ________
_____________________________________________
_____________________________________________
22. The common name for the Liasis is ________
_____________________________________________
23. What does arboreal mean? ________________
24. What makes scientists think the Liasis was
arboreal? ____________________________
Question Time

25. The Quinkana was a large ______________ that lived ______________.

26. Describe the legs of the Quinkana. ______________

27. What is the name of the 2.5 metre long nonmarine turtle? ______________

28. Describe the head of the Meilania. ______________

29. The Dromornis was a huge ______________, standing up to ______________ metres tall.

30. The legs of the Dromornis were ______________
Create your Own Megafauna

Create your own megafauna creature and draw a picture of it in the box below. Describe it on the lines at the bottom of the page.

_______________________________

_______________________________

_______________________________

_______________________________

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_______________________________
Your Megafauna’s Habitat

Draw your Megafauna’s habitat in the box below. Describe it on the lines at the bottom of the page.
Megafauna:
- [https://blogs.unimelb.edu.au/sciencecommunication/2014/10/14/australias-mega-past/](https://blogs.unimelb.edu.au/sciencecommunication/2014/10/14/australias-mega-past/)

Diprotodon:
- [https://australianmuseum.net.au/diprotodon-aptatum](https://australianmuseum.net.au/diprotodon-aptatum)
- [https://www.newdinosaurs.com/diprotodon/](https://www.newdinosaurs.com/diprotodon/)

Euryzygoma:
- [https://australianmuseum.net.au/euryzygoma-dunense](https://australianmuseum.net.au/euryzygoma-dunense)

Zygomaturus:
- [https://australianmuseum.net.au/image/zygomaturus](https://australianmuseum.net.au/image/zygomaturus)
- [http://austhrutime.com/zygomaturus.htm](http://austhrutime.com/zygomaturus.htm)

Procoptodon:
- [https://australianmuseum.net.au/procoptodon-goliath](https://australianmuseum.net.au/procoptodon-goliath)
- [https://en.wikipedia.org/wiki/Procoptodon](https://en.wikipedia.org/wiki/Procoptodon)

Genyornis:
- [https://australianmuseum.net.au/genyornis-newtoni](https://australianmuseum.net.au/genyornis-newtoni)
Links

Thylacoleo:
- https://australianmuseum.net.au/thylacoleo-carnifex
- https://en.wikipedia.org/wiki/Thylacoleo

Megalania:
- https://australianmuseum.net.au/megalania-prisca
- https://en.wikipedia.org/wiki/Megalania

Wonambi:
- https://en.wikipedia.org/wiki/Wonambi

Thylacine:

Liasis:
- https://australianmuseum.net.au/liasis-dubudingala
- https://en.wikipedia.org/wiki/Liasis

Quinkana:
Links

Meiolania:
• http://www.prehistoric-wildlife.com/species/m/meiolania.html
• https://en.wikipedia.org/wiki/Meiolania

Dromornis:
• http://www.prehistoric-wildlife.com/species/d/dromornis.html
• https://australianmuseum.net.au/dromornis-planei-bullockornis-planei
• https://australianmuseum.net.au/dromornis-stirtoni
• http://www.kickassfacts.com/10-prehistoric-giants-of-australia/