

# Identifying Your Fossil

What Have You Found?

# Site Of Fossil Discovery



Images Courtesy of ReBecca  
Hunt-Foster

# Fossil Recovery Process

Once it's confirmed that what has been found is a fossil, and a fossil of interest, the process of documentation and preparation for removal begins. Each specimen is labeled and the detail about the size, shape, location, and position is recorded to be used when the paleontologists return from the field.



Images Courtesy of ReBecca Hunt-Foster

# Fossil Recovery Process

Removing the fossil from the ground and the excess rock from the fossil can be a delicate process. As rocks around the fossil crack, so can the fossil. Special adhesives are used to fill in cracks and weak areas to stabilize the fossil so it can survive the removal process.



Images Courtesy of ReBecca Hunt-Foster

# Fossil Recovery Process

Once the fossil's location information is documented and stabilized, the fossil is prepped for its journey to its next destination. This process involves removing the rock from generally one face of the fossil then freeing the bottom half from the formation it was found in. The rest of the rock can be removed when it reaches its next destination.



Images Courtesy of ReBecca Hunt-Foster

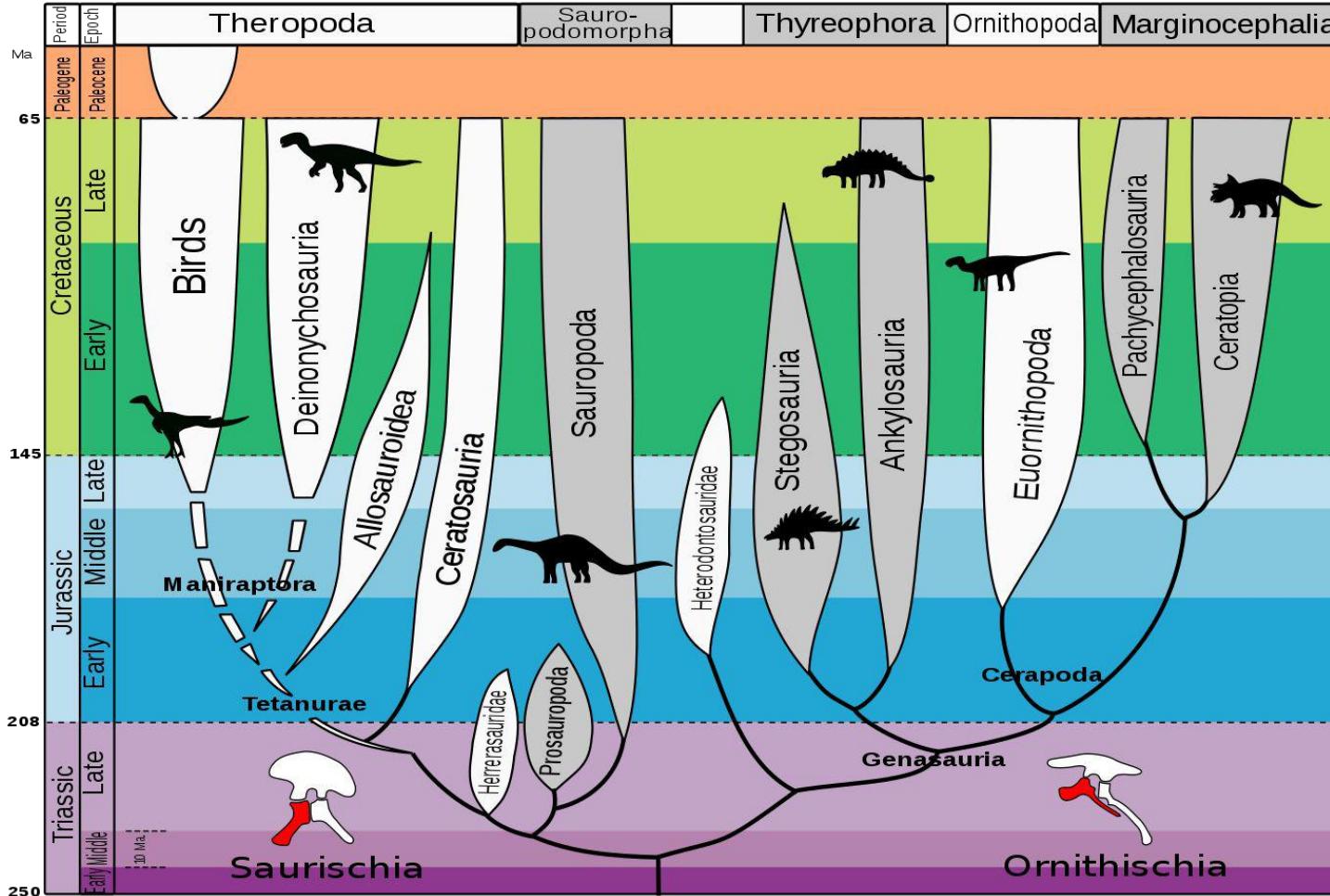
# Fossil Recovery Process

Once fossils are successfully uncovered and stabilized, a field jacket is created so the fossil can be successfully moved from the field to a museum or institution that will complete the process of removing the fossil from the surrounding rock or “matrix”.



Image Courtesy of ReBecca Hunt-Foster and Natural History Museum of Los Angeles

# Dinosaur Phylogenetic Tree



This tree shows which dinosaurs were alive and during what time. The names and numbers on the left side indicate what era and how many million years ago. You'll notice that not all dinosaurs are on the diagram. Some you've heard of before were alive during the entire age of dinosaurs. For example, Ceratopia, the group where the triceratops belonged, appeared first in the late Triassic at the earliest.

# Dinosaur Dentition

Teeth can tell you a lot about the diet of an organism. This information can also help you narrow down the type of features of the organism or its habitat.



Credit: Daderot via [Wikimedia Commons](#)

Beak

Capable of cutting through and tearing off tough plants and plant material.



Credit: Funk Monk via [Wikimedia Commons](#)

Flat Teeth

Capable of grinding plant matter down for easier digestion.

# Dinosaur Dentition

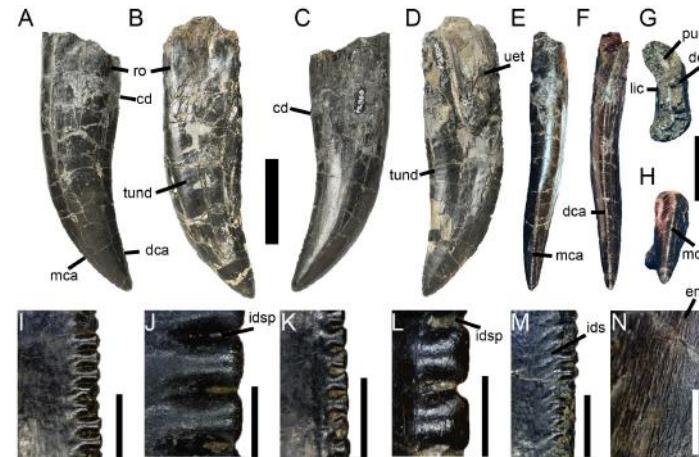
Look at the close up details of these teeth of meat eaters to help you to identify specific information about the fossil you are identifying.



Straight Pointed Teeth

Credit: Brian Soash

These teeth were often used by piscivores (creatures that primarily eat fish) and opportunistic feeders such as scavengers.



Curved Serrated Teeth

Credit: Scott Hartman, Carol Abraczinskas, Simão Mateus, Christophe Hendrickx, Octávio Mateus via [Wikimedia Commons](#)

Used by active predators and opportunistic feeders to grab its prey and tear off chunks of flesh. These teeth could also be used for scavenging.

# Dinosaur Dentition

These teeth belonged to herbivores, or eaters of foliage. Does your fossil have teeth like these?



Spatulate Teeth

Credit: Ghedoghedovia [Wikimedia Commons](#)

These teeth were also used by herbivores. They consist of a wider end and skinnier base to strip off foliage. This foliage would then be ground by [gastroliths](#) in the stomach instead of chewing.



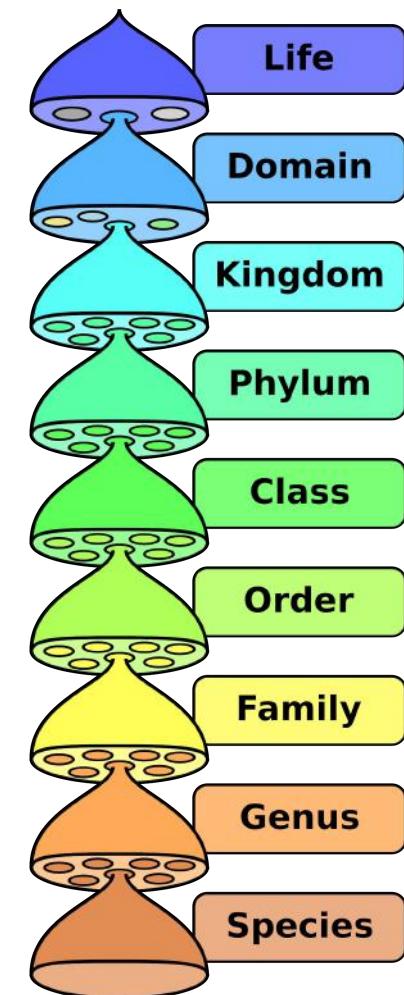
Peg Like Teeth

Credit: Matt Bilden via [Warren Air Force Base](#)

Used by herbivores to eat aquatic plants or raking off the fronds of terrestrial based plants.

# Classification Hierarchy

Organisms, both living and extinct, are classified using the system, or taxonomy to the right. Names for each category are in Latin. Knowing the classification of your dinosaur can help you establish potential traits of your dinosaur.



**Order**  
Ornithischia  
**Suborder**  
Ornithopoda  
**Genus**  
*Uteodon*



**Order**

Ornithischia

**Suborder**

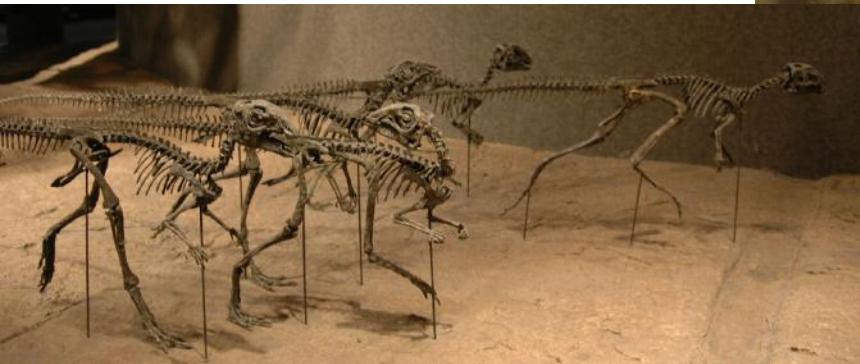
Ornithopoda

**Genus**

*Dryosaurus*



Order  
Ornithischia  
Clade  
Neornithischia  
Genus  
*Othnielosaurus*



Credit: Frisfron via [Wikimedia Commons](#)



Credit: Ghedoghedo via [Wikimedia Commons](#)

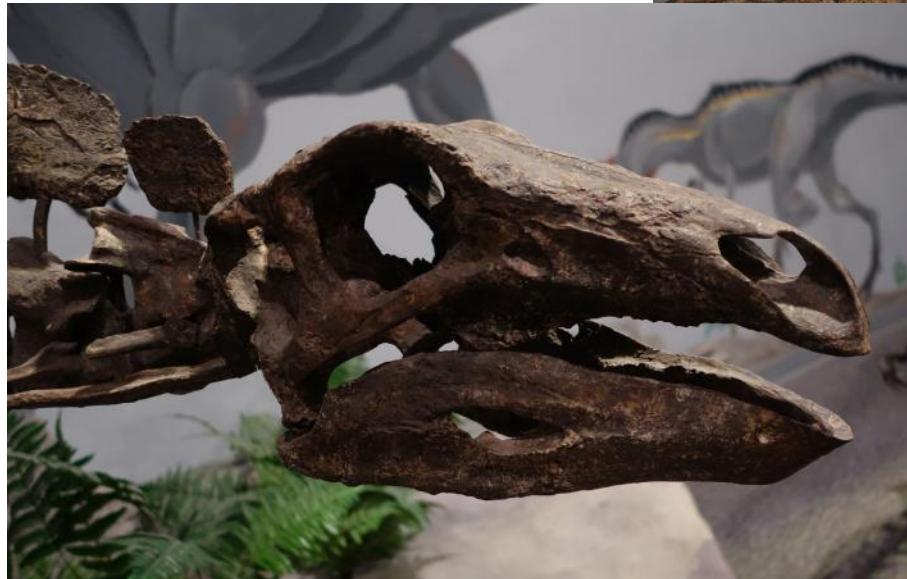
Order  
Ornithischia  
Family  
Nodosauridae  
Genus  
*Gargoyleosaurus*



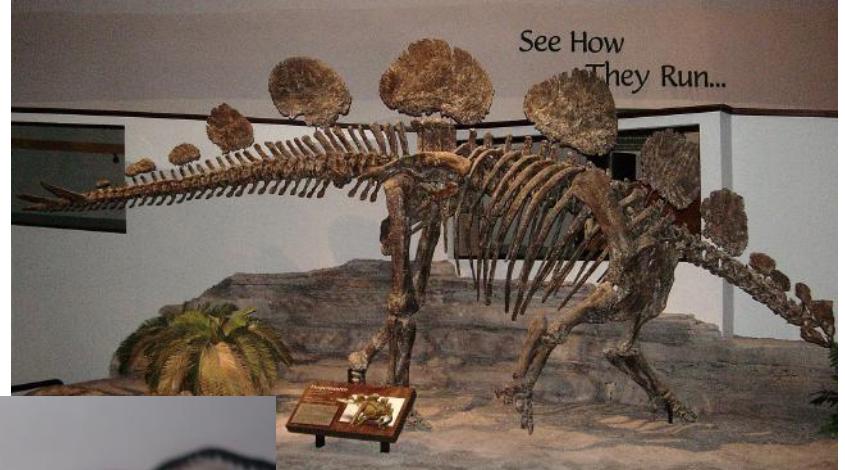
Credit: Firsfron via [Wikimedia Commons](#)

Credit: Zach Tirrell via [Wikimedia Commons](#)

Order  
Ornithischia  
Suborder  
Stegosauria  
Genus  
*Hesperosaurus*



Credit: Etemenanki3 via [Wikimedia Commons](#)



: Ninjatacoshell via [Wikimedia Commons](#)

Order  
Ornithischia  
Suborder  
Ankylosauria  
Genus  
*Mymoorapelta*



Credit: incidencematrix via [Wikimedia Commons](#)



Credit: Kazuh via [Wikimedia Commons](#)

Order

Ornithischia

Suborder

Stegosauria

Genus

*Stegosaurus*



Credit: Perry Quan via [Wikimedia Commons](#)



Credit: EvaK via [Wikimedia Commons](#)



Credit: Kevmin via [Wikimedia Commons](#)

Order

Saurischia

Suborder

Sauropodomorpha

Genus

*Haplocaanthosaurus*



Order

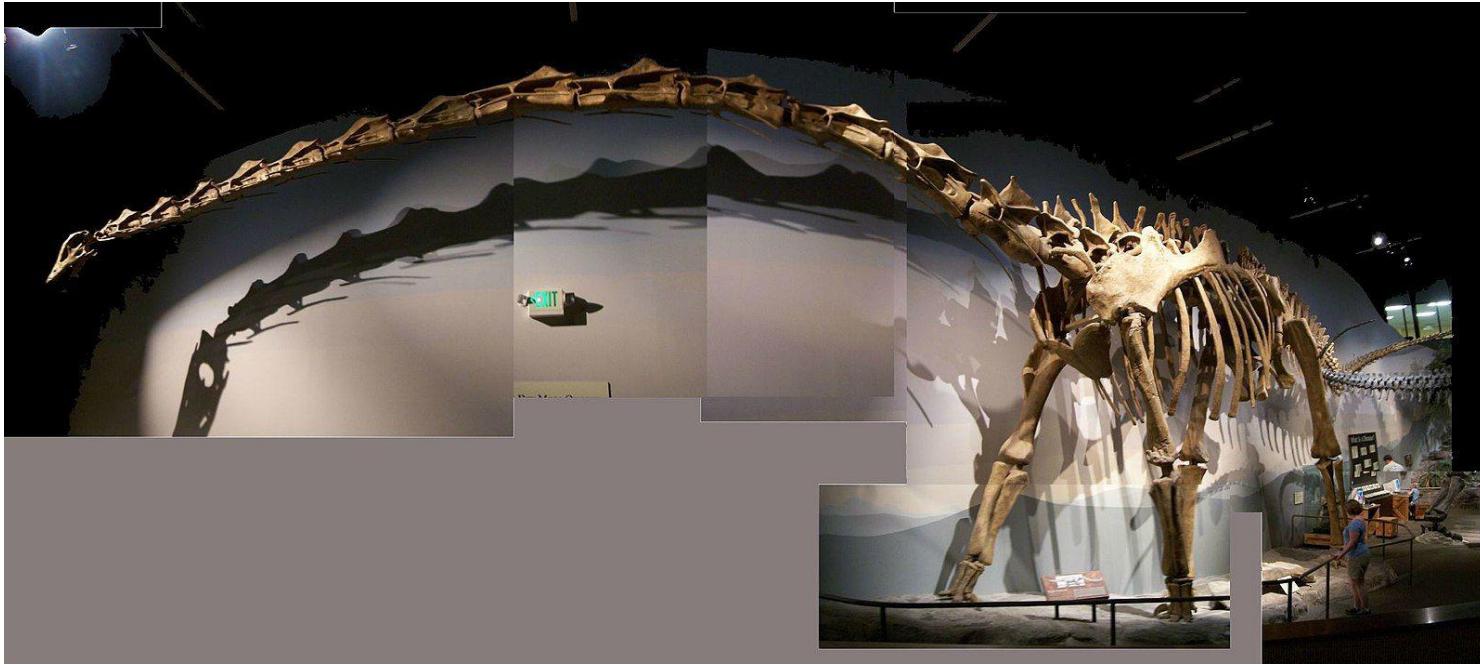
Saurischia

Suborder

Sauropodomorpha

Genus

*Supersaurus*



Credit: Zach Tirrell via [Wikimedia Commons](#)

**Order**

Saurischia

**Suborder**

Sauropodomorpha

**Genus**

*Camarasaurus*



Credit: Quadell via [Wikimedia Commons](#)

Order

Saurischia

Suborder

Sauropodomorpha

Genus

*Diplodocus*



Order

Saurischia

Suborder

Sauropodomorpha

Genus

*Apatosaurus*



Credit: Tadek Kuparski via [Wikimedia Commons](#)

Order

Saurischia

Suborder

Sauropodomorpha

Genus

*Brontosaurus*



Credit: Ad Meskens via [Wikimedia Commons](#)

Order

Saurischia

Suborder

Sauropodomorpha

Genus

*Barosaurus*



Credit: Kristy Van via [Wikimedia Commons](#)



Credit: Peter Kudlacz via [Wikimedia Commons](#)

Order

Saurischia

Suborder

Sauropodomorpha

Genus

*Galeamopus*



Credit: Peter Kudlacz via [Wikimedia Commons](#)



Credit: The\_Wookies via [Wikimedia Commons](#)

Order

Saurischia

Suborder

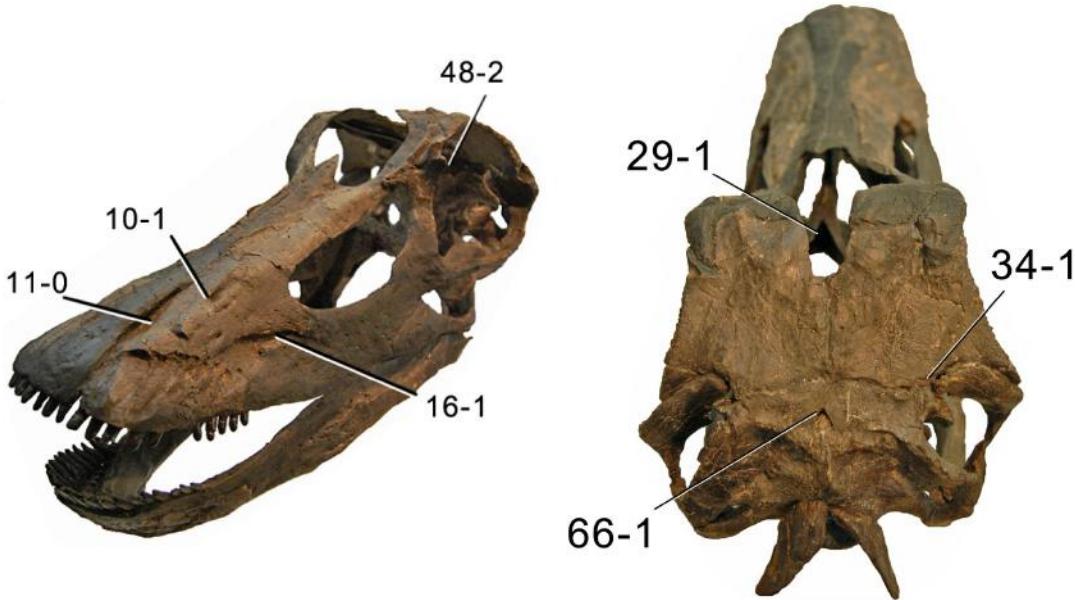
Sauropodomorpha

Genus

*Kaatedocus*



Credit: Paul Hermans via [Wikimedia Commons](#)



Credit: Emanuel Tschopp, Octavio Mateus, Roger Benson via [Wikimedia Commons](#)

**Order**

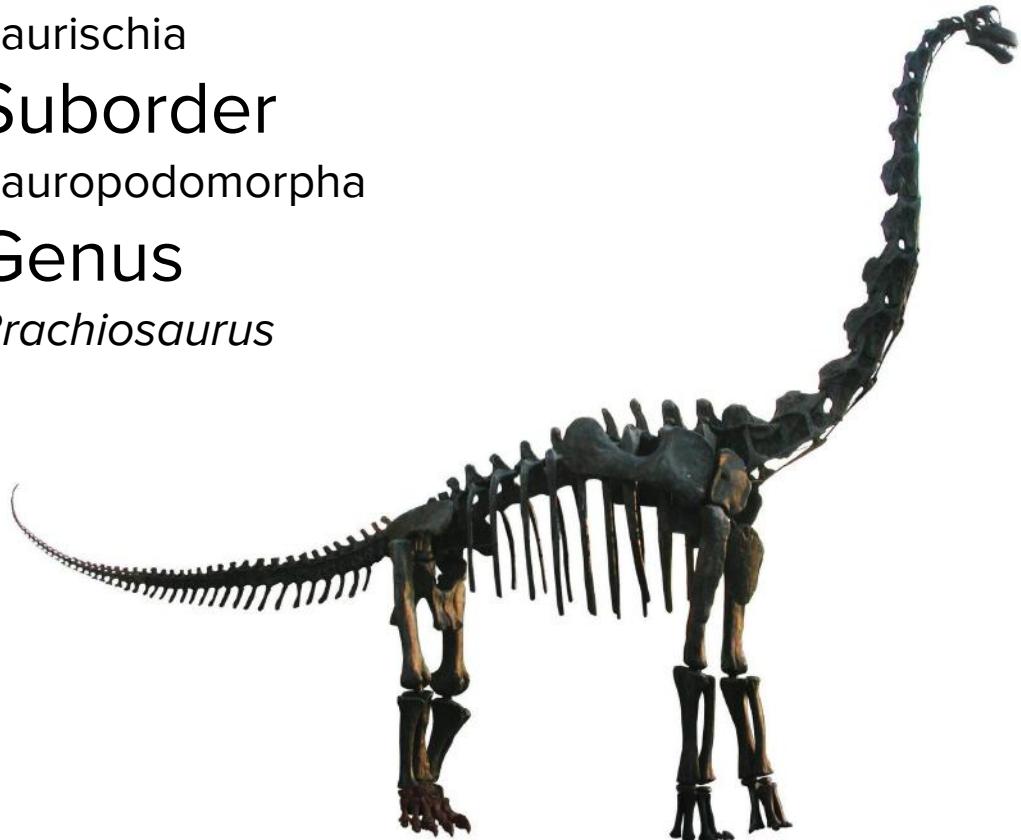
Saurischia

**Suborder**

Sauropodomorpha

**Genus**

*Brachiosaurus*



Credit: Matt Wedel via [Wikimedia Commons](#)



Credit: Etemenanki3 via [Wikimedia Commons](#)

Order  
Saurischia  
Suborder  
Theropoda  
Genus  
*Torvosaurus*



Order  
Saurischia  
Suborder  
Theropoda  
Genus  
*Allosaurus*



Credit: Scott Robert Anselmo via [Wikimedia Commons](#)

Order

Saurischia

Suborder

Theropoda

Genus

*Saurophaganax*



Credit: Chris Dodds via [Wikimedia Commons](#)

Order

Saurischia

Suborder

Theropoda

Genus

*Ceratosaurus*



Credit: Jens Lallensack via [Wikimedia Commons](#)

Order  
Saurischia  
Suborder  
Theropoda  
Genus  
*Ornitholestes*



Credit: Etemenanki3 via [Wikimedia Commons](#)



Credit: Ryan Somma via [Wikimedia Commons](#)

Order

Saurischia

Suborder

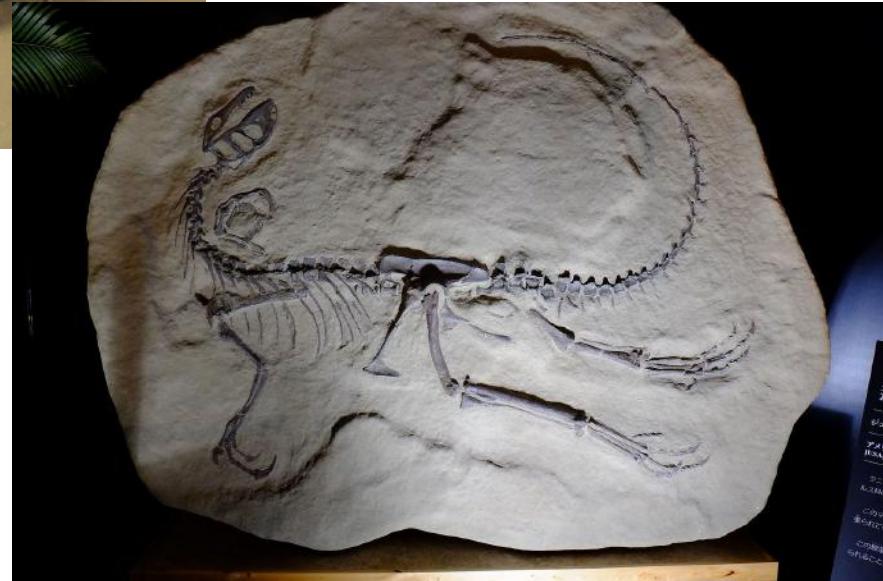
Theropoda

Genus

*Tanycolagreus*



Credit: Daderot via [Wikimedia Commons](#)



Credit: Kumiko via [Wikimedia Commons](#)

Order  
Saurischia  
Suborder  
Theropoda  
Genus  
*Marshosaurus*

