Identifying Your Fossil

What Have You Found?

Resource created by Brian Soash

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

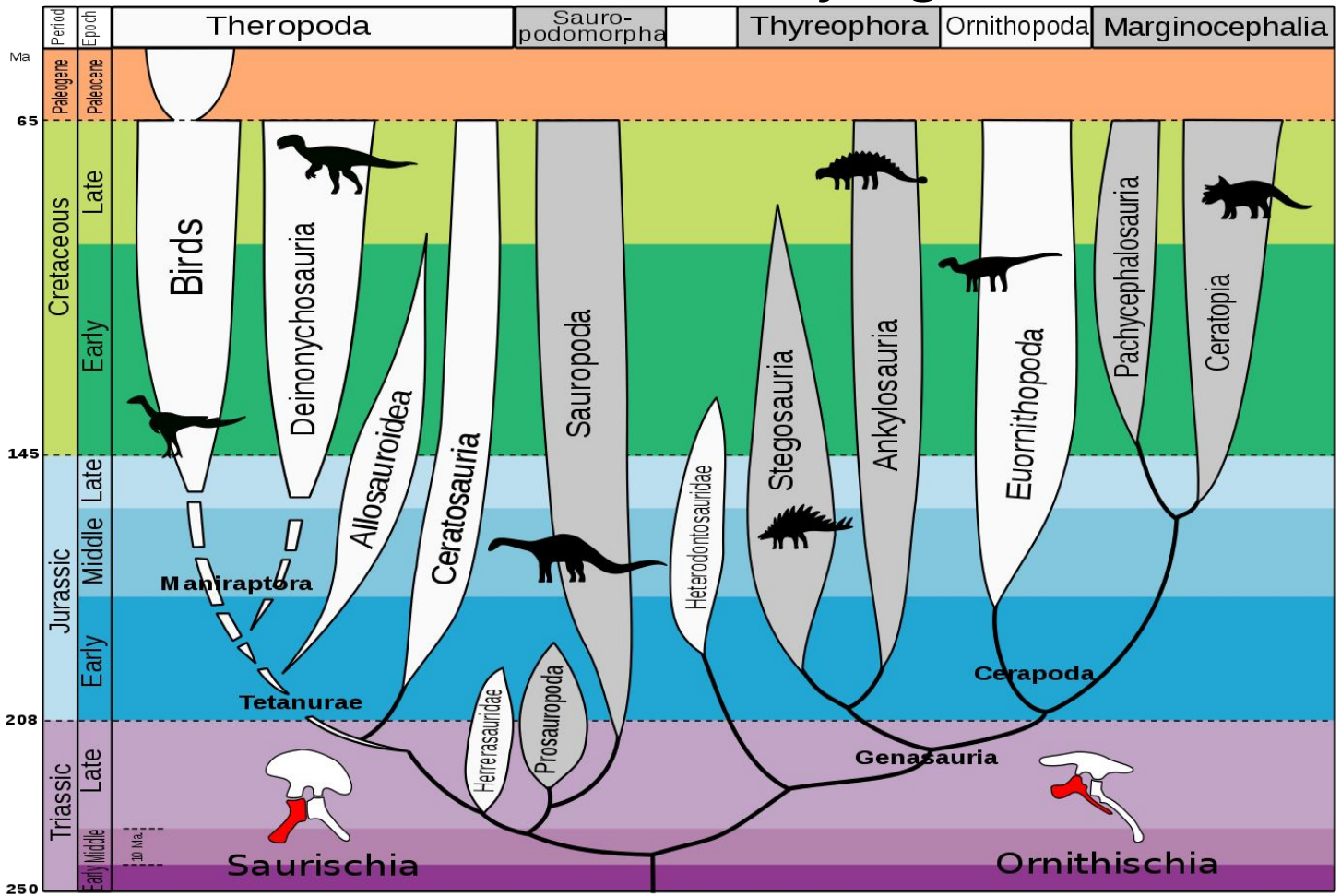
Fossil Recovery Process

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.

Credit: Woudloper via Wikimedia Commons

Dinosaur Dentition

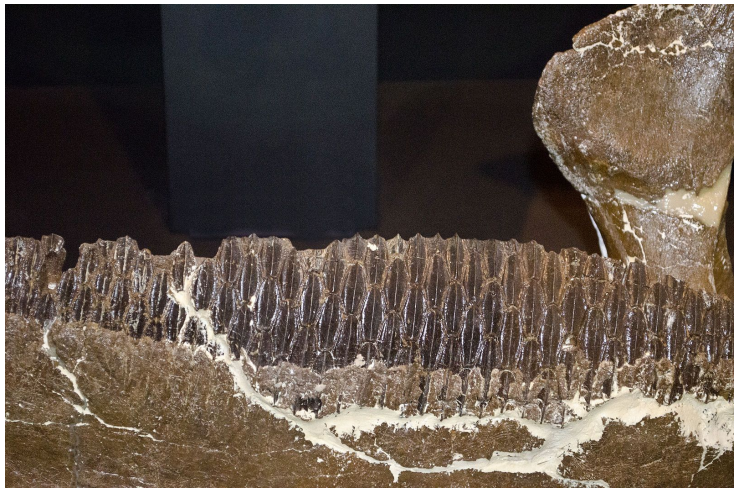
Teeth can tell you a lot about the diet of an organism. This information can also help you narrow down the type of features of the organism or its habitat.



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

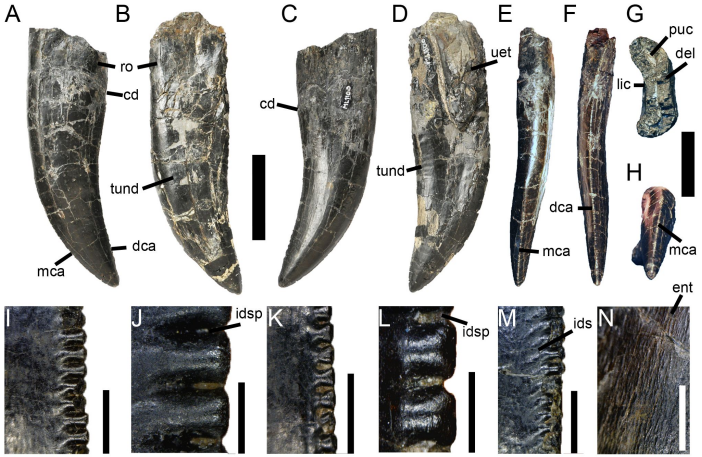
Look at the close up details of these teeth of meat eaters to help you to identify specific information about the fossil you are identifying.



Straight Pointed Teeth

Credit: Brian Soash

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



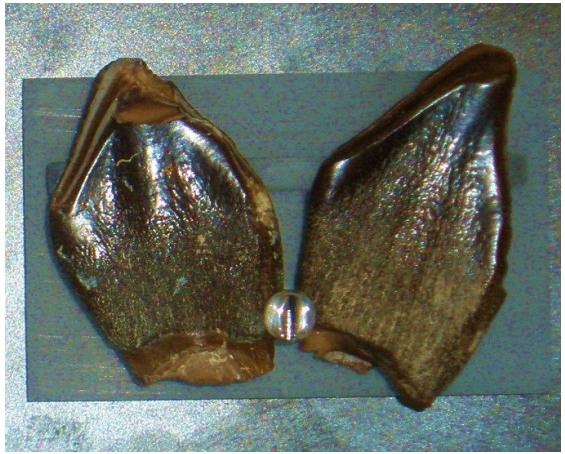
Curved Serrated Teeth

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.



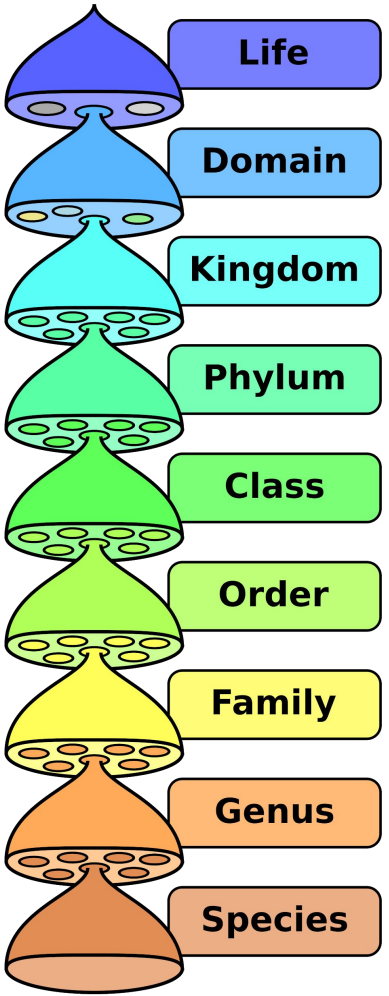
Peg Like Teeth

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.



Credit: Peter Halasz via Wikimedia Commons

Order

Ornithischia

Suborder

Ornithopoda

Genus

Uteodon



Credit: Daderot via Wikimedia Commons

Order

Ornithischia

Suborder

Ornithopoda

Genus

Dryosaurus



Credit: Kumikovia Wikimedia Commons

Order

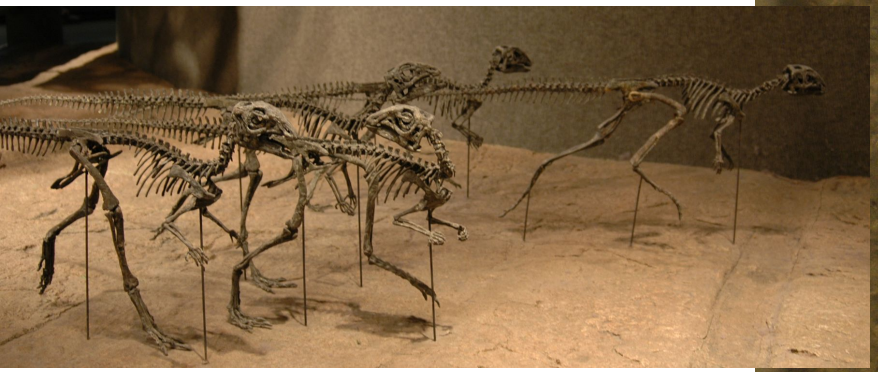
Ornithischia

Clade

Neornithischia

Genus

Othnielosaurus



Credit: Frisfron via Wikimedia Commons



Credit: Ghedoghedo via Wikimedia Commons

Order

Ornithischia

Family

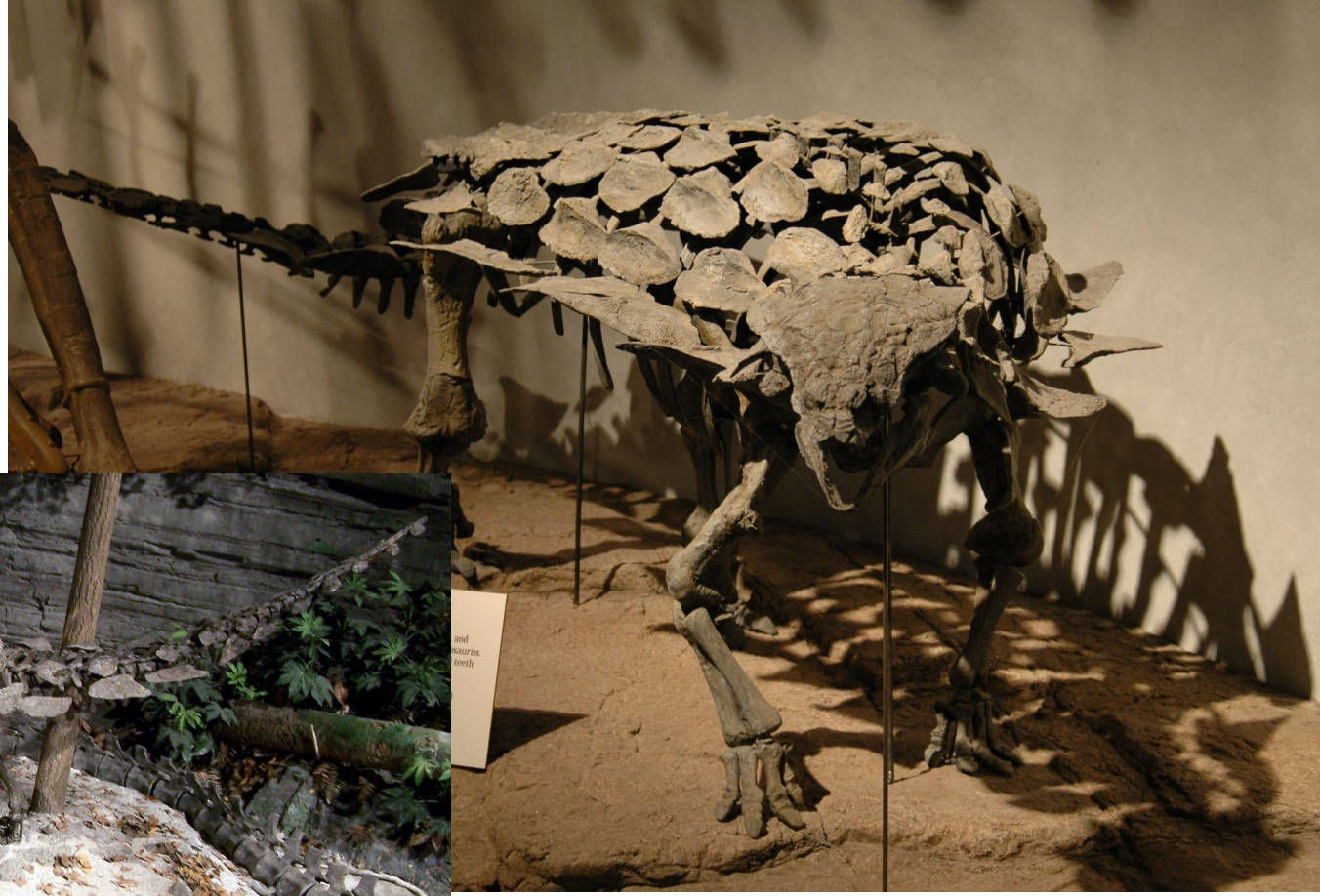
Nodosauridae

Genus

Gargoyleosaurus



Credit: Zach Tirrell via Wikimedia Commons



Credit: Firsfron via Wikimedia Commons

Order

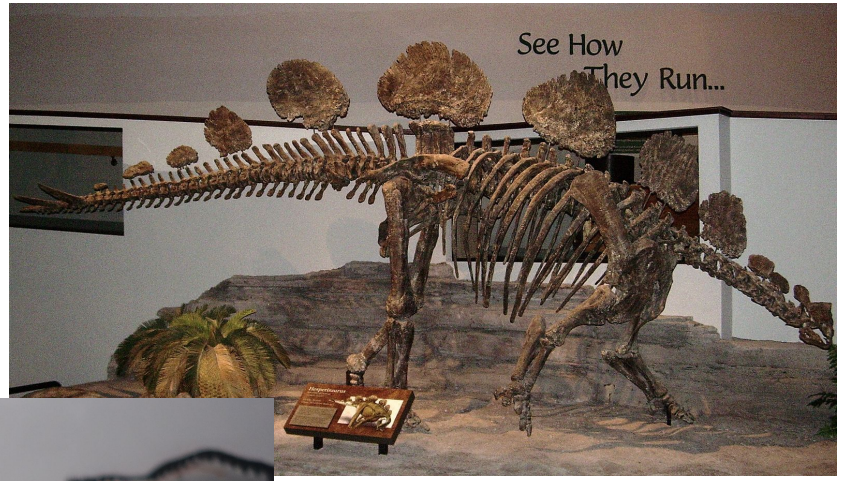
Ornithischia

Suborder

Stegosauria

Genus

Hesperosaurus



: Ninjatacoshell via Wikimedia Commons



Credit: Etemenanki3 via Wikimedia Commons

Order

Ornithischia

Suborder

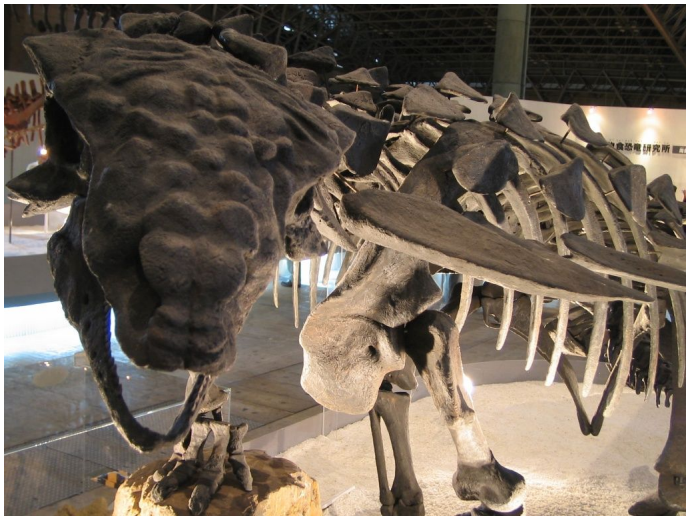
Ankylosauria

Genus

Mymoorapelta



Credit: incidencematrix via Wikimedia Commons



Credit: Kazuh via Wikimedia Commons

Order

Ornithischia

Suborder

Stegosauria

Genus

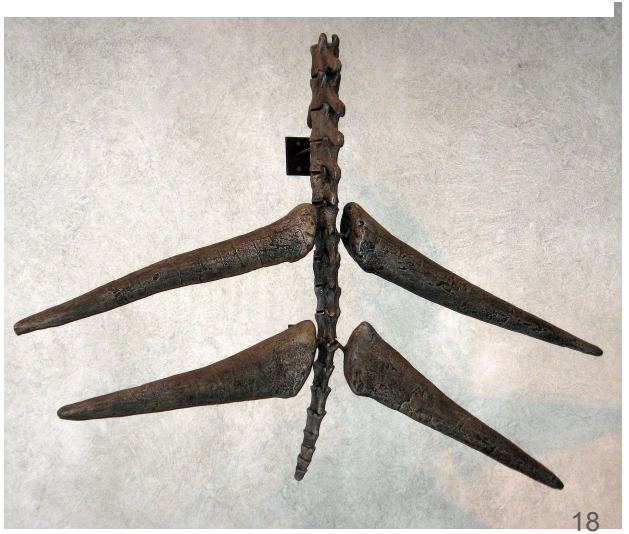
Stegosaurus



Credit: EvaK via Wikimedia Commons



Credit: Perry Quan via Wikimedia Commons



Credit: Kevmin via Wikimedia Commons

Order

Saurischia

Suborder

Sauropodomorpha

Genus

Haplocanthosaurus



Credit: ScottRobertAnselmo via Wikimedia Commons

Order

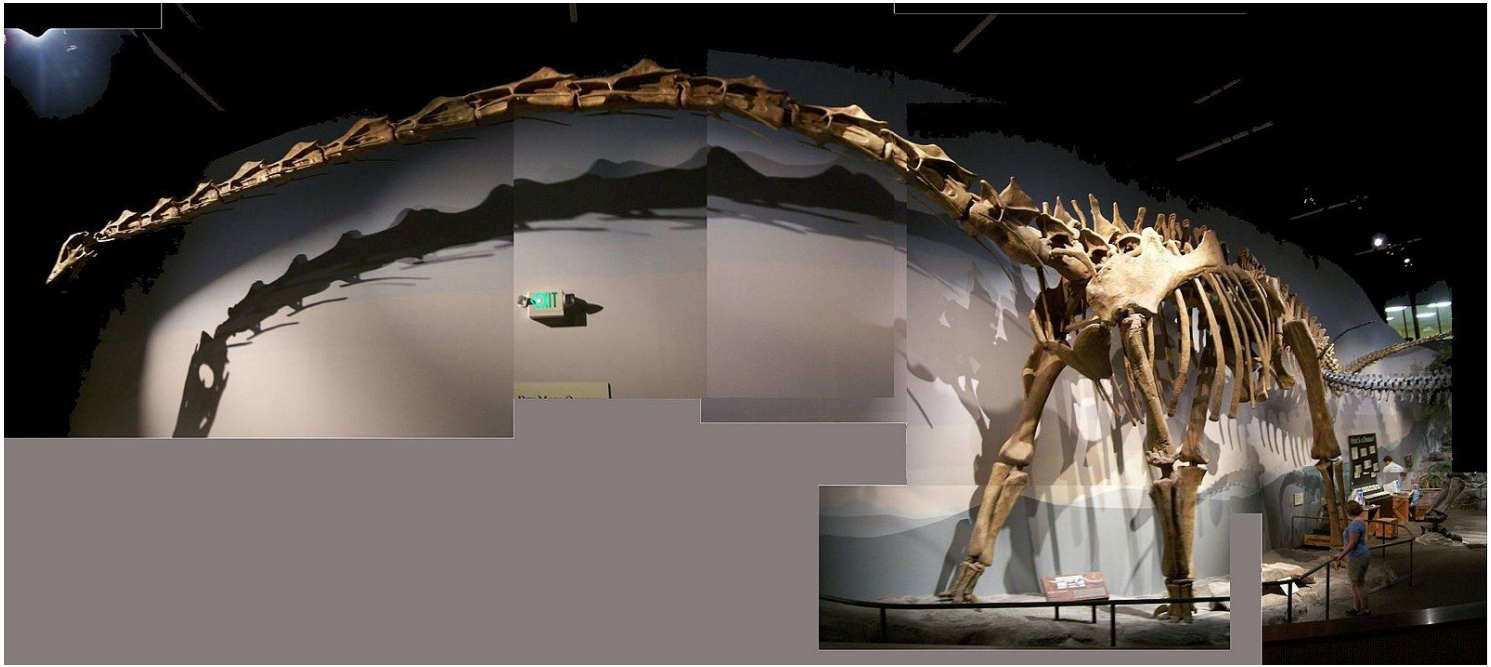
Saurischia

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



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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

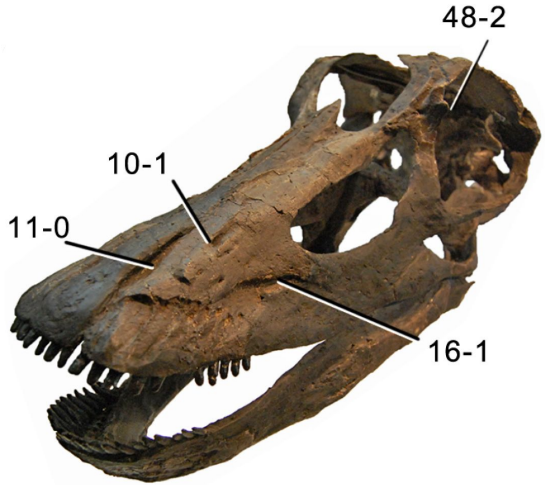
Sauropodomorpha

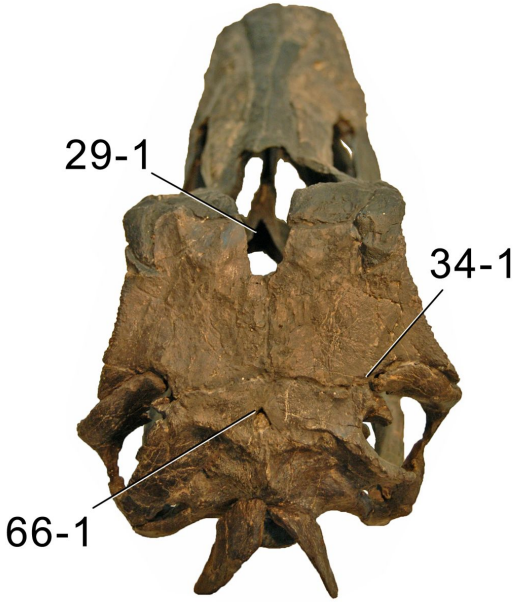
Genus

Kaatedocus



Credit: Paul Hermans via Wikimedia Commons





Credit: Emanuel Tschopp, Octavio Mateus, Roger Benson via Wikimedia Commons

Order

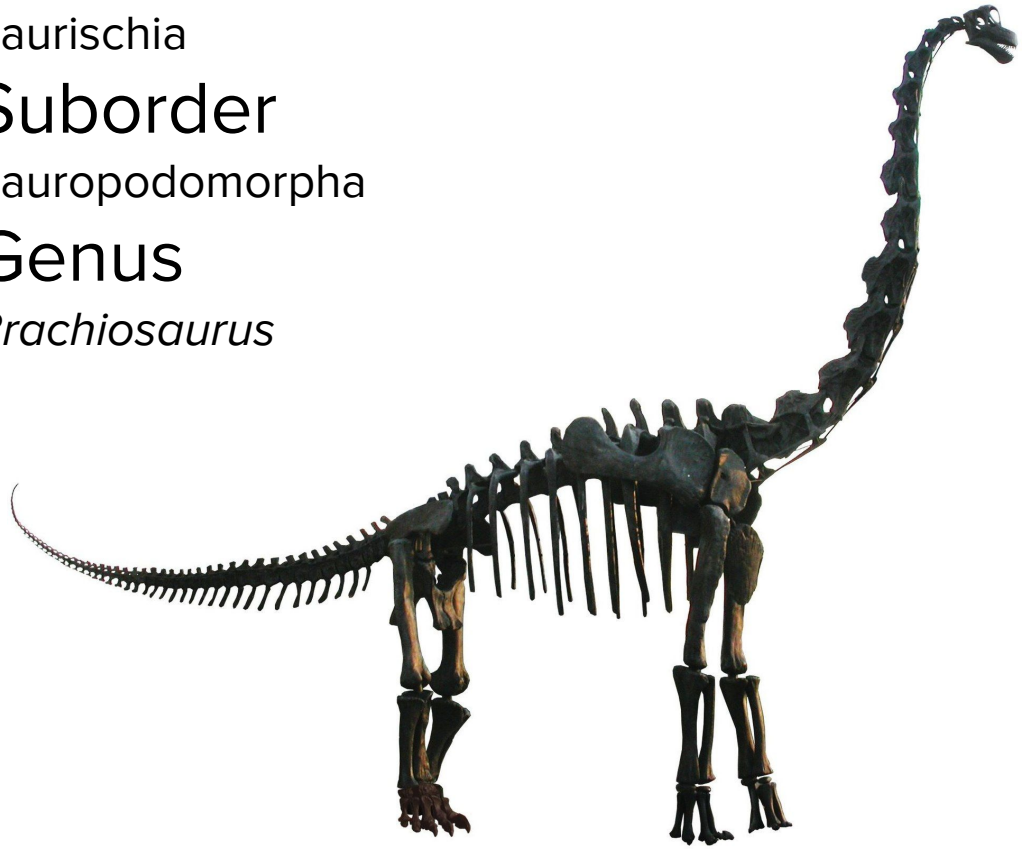
Saurischia

Suborder

Sauropodomorpha

Genus

Brachiosaurus



Credit: Matt Wedel via Wikimedia Commons



Credit: Etemenanki3 via Wikimedia Commons

Order

Saurischia

Suborder

Theropoda

Genus

Torvosaurus



Credit: Javier Cuervo [Wikimedia Commons]

Order

Saurischia

Suborde

Theropoda

Genus

Allosaurus



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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



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Order

Saurischia

Suborder

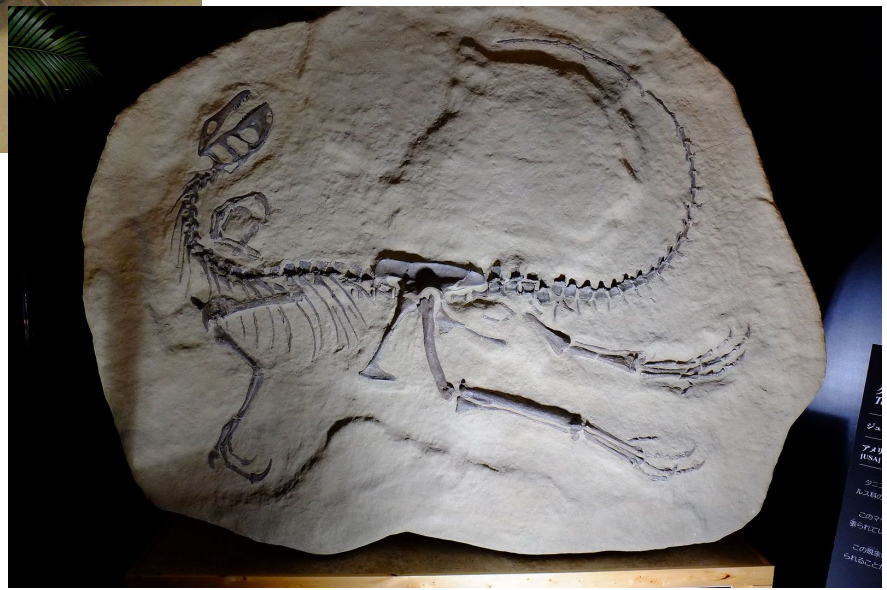
Theropoda

Genus

Tanycolagreus



Credit: Daderot via Wikimedia Commons



Credit: Kumiko via Wikimedia Commons

Order

Saurischia

Suborder

Theropoda

Genus

Marshosaurus



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