

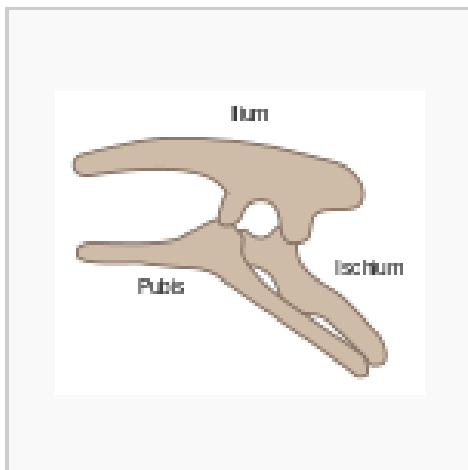
Clade Dinosauria

I recommend you read the Wikipedia entry on dinosaurs. Read as much as you want, but focus on the Introductory section, the Evolutionary History section, and the Extinction section. Understand what characterizes a dinosaur and how they are now considered direct ancestors of birds, such that it is almost incorrect to say “dinosaurs are extinct”. It is correct, however, to say all land restricted dinosaurs went extinct at the Cretaceous extinction some 65 MYA after a period of about 135 MY when dinosaurs were the dominant land animal on the planet.

You are responsible for 11 dinosaurs from two main Orders.

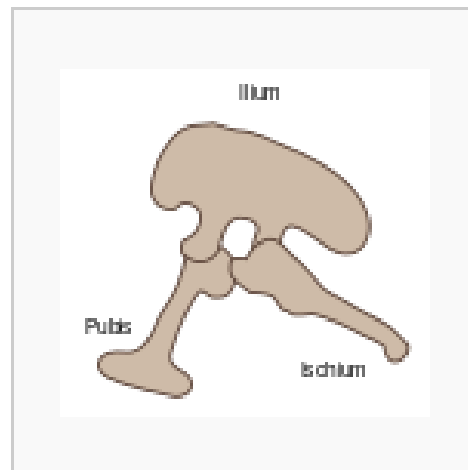
Order Saurischia (or lizard-hipped dinosaurs)

Order Ornithischia (bird-hipped dinosaurs)



Ornithischian pelvic structure (left side)

“Birds” – pelvic bone is horizontal and extends towards the tail



Saurischian pelvic structure (left side).

“Saurischia” – pelvic bone is more vertical extending extends toward ground and head.

Clade Dinosauria (pg. 1 of 5)

Order Saurischia (Lizard-hipped)

67. Genus *Allosaurus*

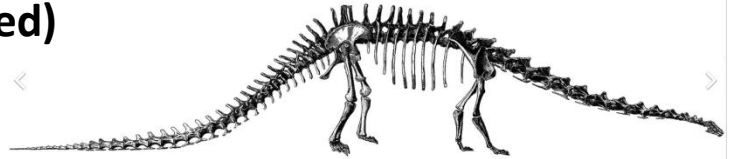
Carniverous, bipedal (i.e.therapod),
most common large dinosaur of
Jurassic, may have survived into
Cretaceous



Order Saurischia (Lizard-hipped)

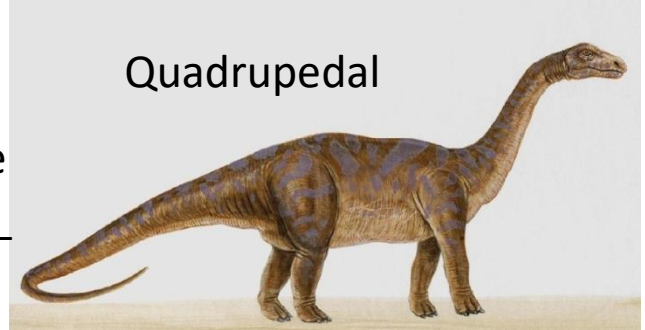
68. Genus *Diplodocus*

Late Jurassic herbivore
different teeth that related
herbivores, allowed him to strip
branches easily lived with
Allosaurus, likely protected by size



20-24m long, 10-12 tons

Quadrupedal



Order Saurischia (Lizard-hipped)

69. Genus *Coelophysis*

Triassic (200 MYA), bipedal,
primarily carniverous, believed
to live gregariously (in herds)



Clade Dinosauria (pg. 2 of 5)

Order Saurischia (Lizard-hipped)

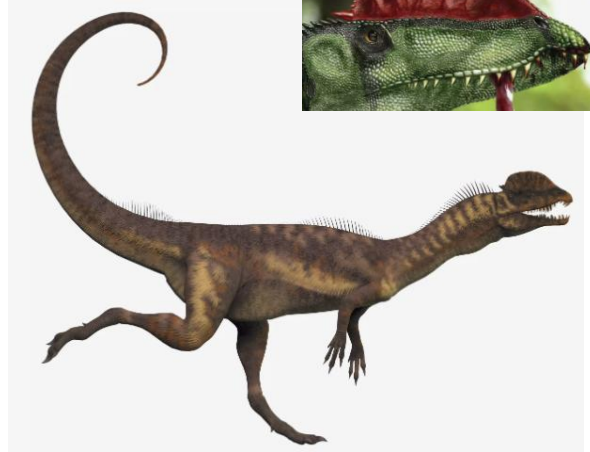
70. Genus *Dilophosaurus*

Early Triassic (195-190 mya

Theropod - one of earliest predator dinosaurs (carnivore)

~7m (23'), bipedal

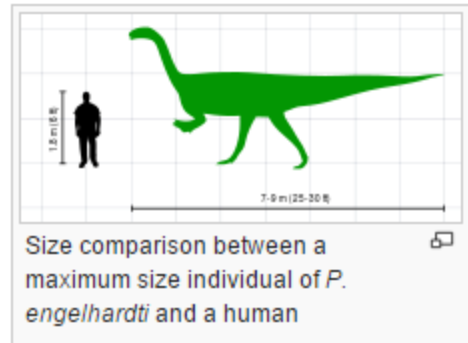
Named for paired crest atop head



Order Saurischia (Lizard-hipped)

71. Genus *Plateosaurus*

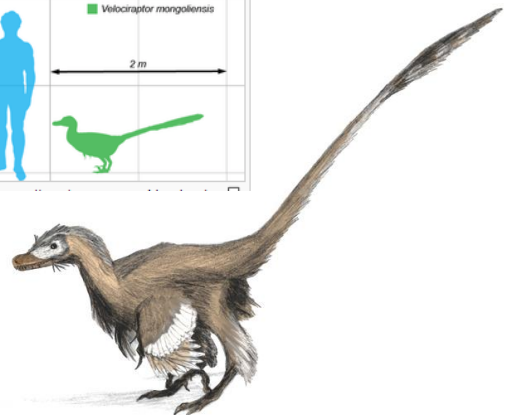
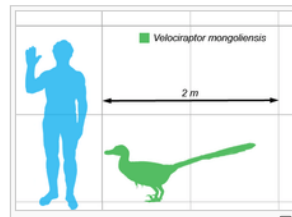
Bipedal herbivore – Triassic (215-200 MYA) in Europe, very small head



Order Saurischia (Lizard-hipped)

72. Genus *Velociraptor*

Latest Cretaceous (75-70 MY), small “Jurassic Park” predators, but should have had feathers

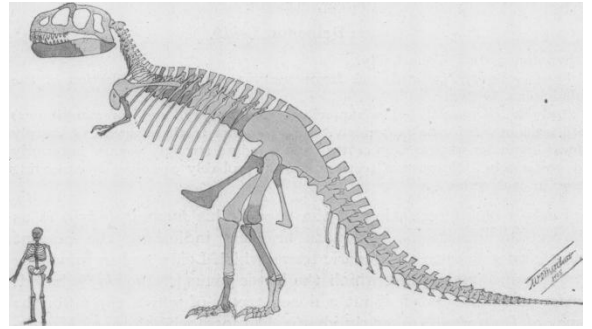


Clade Dinosauria (pg. 3 of 5)

Order Saurischia (Lizard-hipped)

73. Genus *Tyrannosaurus*

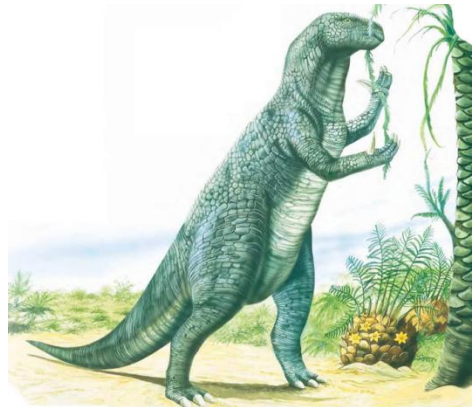
Very late Cretaceous North American (70-65 MY) Carnivore, bipedal _____



Order Ornithischia (bird-hipped)

74. Genus *Iguanodon*

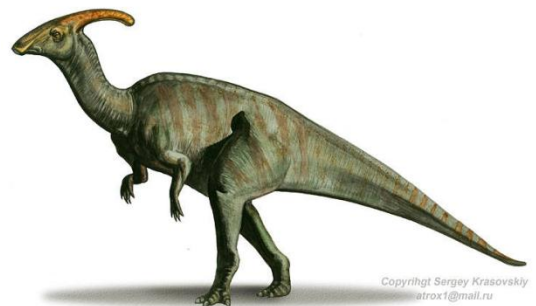
Bulky herbivores that were both bipedal and quadrupedal Early Cretaceous ~120 MY, in Europe) _____



Order Ornithischia (bird-hipped)

75. Genus *Parasaurolophus*

Late Cretaceous (75-70 MY) herbivore, unusual "cranial crest", perhaps to balance the head? _____



Clade Dinosauria (pg. 4 of 5)

Order Ornithischia (bird-hipped)

76. Genus *Stegosaurus*

Herbivorous quadruped,
“armored”, Late Jurassic
(155-150 MY) both North
America and Europe

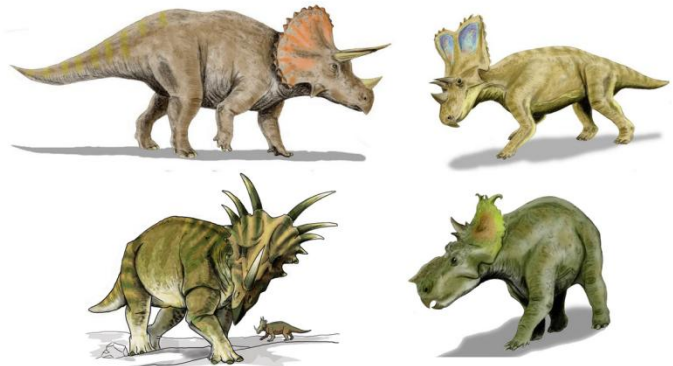
Note the pubis pointing
toward the tail



Order Ornithischia (bird-hipped)

77. Genus *Triceratops*

“three horned face”. Very last of
non-avian dinosaurs, latest
Cretaceous, herbivore,
quadruped

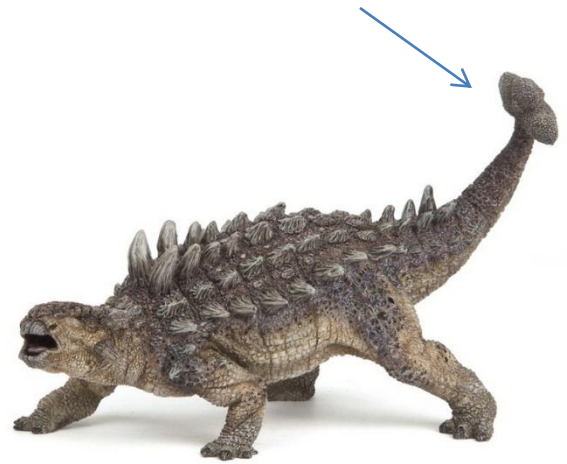


Clade Dinosauria (pg. 5 of 5)

Order Ornithischia (bird-hipped)

78. Genus *Ankylosaurus*

Very end of Cretaceous (68-65 my)
armored quadrupedal herbivore,
first found in western US, but
worldwide, one of the last
dinosaurs to go extinct



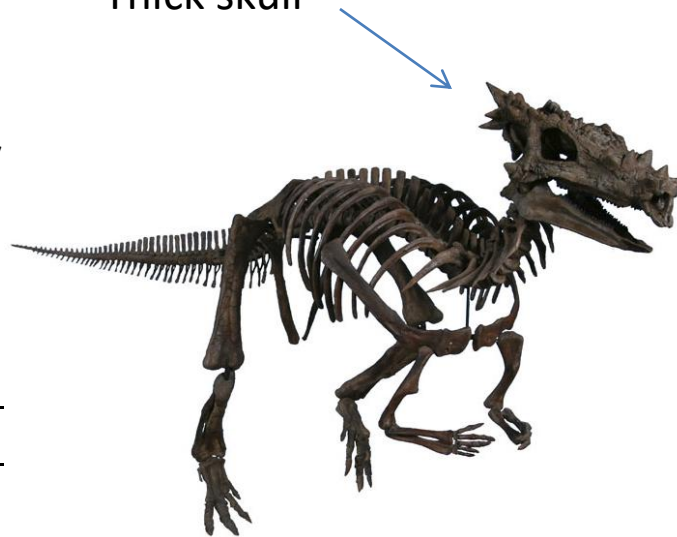
7m (23'), up to 6000
pounds

Order Ornithischia (bird-hipped)

79. Genus *Dracorex hogwartsia*

Late Cretaceous herbivore
only one species, *named for Harry
Potter School of Wizardry after
2004 discovery in South Dakota*
small – 3m, perhaps 100 lbs.

Horned head
Thick skull



*Some paleontologist believe Dracorex
are really young Pachycephalosaurus*

Class Aves

Birds (**class Aves** or clade Avialae) are feathered, winged, two-legged, warm-blooded, egg-laying vertebrates. Modern birds are characterised by feathers, a beak with no teeth, the laying of hard-shelled eggs, a high metabolic rate, a four-chambered heart, and a lightweight but strong skeleton.

80. Genus – Archaeopteryx (Late Jurassic, ~150 MYA)

- Transitional from dinosaur to bird
 - First fossil to display traditional reptile characteristics (teeth, clawed fingers, tail) and also flight feathered wings characteristic of modern birds
 - Similar in size to a raven
-
-
-
-



Class Aves

81 Genus Titanis (Terror Bird)

Pliocene-Pleistocene (5 to 2 mya) 8', 300 pound carnivorous bird
Closely resembles
Theropod dinosaurs
But lacks front feet
Ran down prey (30 mph)
could not fly (wings too small for its weight)

