Terrible Lizards

Dinosaurs dominated the Earth for 170 million years, from the late Triassic to the late Cretaceous periods, when the supercontinents of Laurasia and Gondwana were splitting into the landmasses of today. The mass extinction of the dinosaurs about 65 million years ago left fossil remains, including footprints, eggs, and bones. Finding these fossils has enabled scientists to study and classify dinosaurs and to learn about their posture, size, diet, and many other aspects of their lives. These studies revealed that this prehistoric group of lizards included herbivores and carnivores of extraordinary size and striking shapes.

Legs

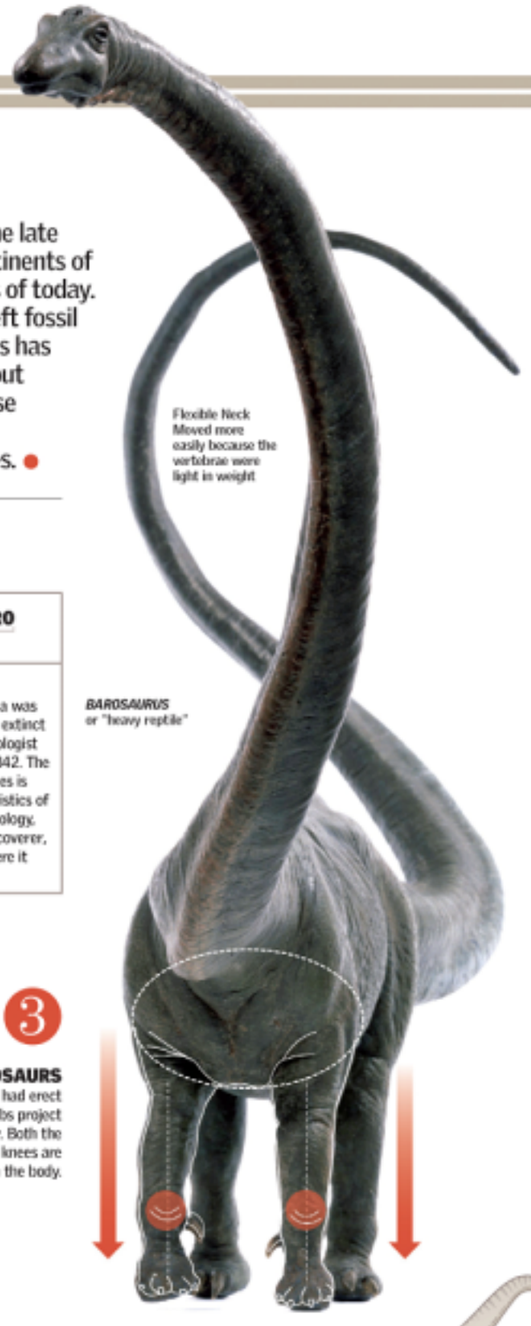
Depending on their lifestyle, some dinosaurs walked on two legs, and some walked on four. However, they all had a similar posture. Due to the structure of their legs, they bear little resemblance to their relatives today: lizards, tuataras, turtles, snakes, and crocodiles.

1 LIZARDS
The limbs project outward. At the elbows and knees, the legs are bent at right angles. This arrangement is called extended posture.

2 CROCODILES
These animals have semi-extended posture. The limbs project out and down. The elbows and knees are bent at a 45° angle. These species crawl slowly and straighten up to run.

DEINOS SAURO
Terrible Lizard

IDENTITY
The term Dinosauria was proposed for these extinct reptiles by paleontologist Richard Owen in 1842. The name of each species is based on characteristics of its shape and physiology, the name of its discoverer, or the location where it was found.



3 DINOSAURS
These animals had erect posture. The limbs project below the body. Both the elbows and the knees are beneath the body.

Iarsh vs. Cope

The American paleontologists Othniel C. Marsh and Edward Cope faced off in a very peculiar uggle. They competed to determine o could find more dinosaur bones l species. The competition was gued with corruption, mutual accusations of espionage, fraud, theft, and even personal violence. Marsh considered himself the winner of "Bone Wars," but the field of paleontology was the real winner as roughly 130 species were identified between the two rivals.

SIR DINOSAUR
Sir Richard Owen, a British paleontologist, was the first to identify fossil remains of "terrible lizards," or "monstrous lizards." He proposed the term Dinosauria, based on his studies and discoveries, and made the first reconstruction of a fossil for the great London Exhibition of 1851.

aurischians

ese dinosaurs had hip nes similar to those of day's reptiles, such as ocodiles and lizards. Many ecies of saurischian dinosaurs ve been found, including *lociraptor* and *gentinosaurus*. They had long, xible necks and large claws the initial digits.

Lizard Hip
Pelvic structure of saurischian dinosaurs

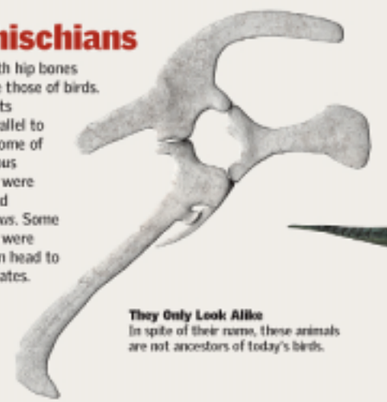
FIERCE LIZARDS
Carnivores of the Cretaceous Period. They grew up to 46 feet (14 m) long and weighed up to 7.7 tons (7 metric tons). Their teeth were like knives.

Tyrannosaurus rex

SUBORDER	INFRAORDER	
Theropoda	Ceratosauria	*Coelophysis bauri*
	Tetanurae	*Allosaurus fragilis*
Sauropodomorpha	Prosauropoda	*Plateosaurus engelhardti*
	Sauropoda	*Argentinosaurus huinculensis*

Ornithischians

Herbivores with hip bones ructured like those of birds. e pubis slants ckward, parallel to e ischium. Some of e most famous nithischians were *iceratops* and *rasaurolophus*. Some nithischians were otected from head to il by bony plates.



They Only Look Alike
In spite of their name, these animals are not ancestors of today's birds.

ORNITHISCHIANS
Named for the curvature in their thighbones. They could walk on two legs.

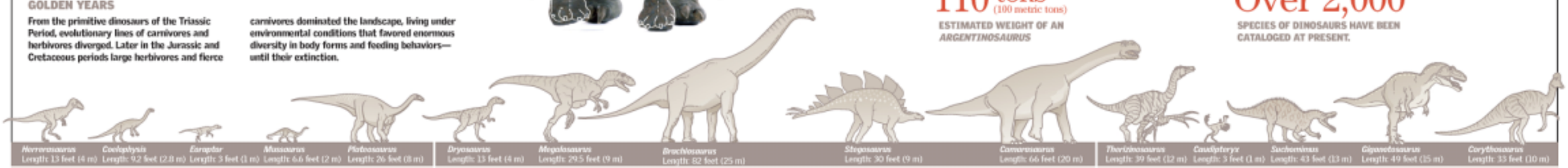
Camptosaurus sp.

SUBORDER	INFRAORDER	
Thyreophora	Scelidosauria	*Trimucrodon cunnatus*
	Stegosauria	*Stegosaurus armatus*
	Ankylosauria	*Centrosaurus sp.*
Cerapoda	Marginocephalia	*Triceratops prorsus*
	Euornithopoda	*Pisanosaurus mertii*

GOLDEN YEARS
From the primitive dinosaurs of the Triassic Period, evolutionary lines of carnivores and herbivores diverged. Later in the Jurassic and Cretaceous periods large herbivores and fierce carnivores dominated the landscape, living under environmental conditions that favored enormous diversity in body forms and feeding behaviors—until their extinction.

110 tons (100 metric tons)
ESTIMATED WEIGHT OF AN *ARGENTINOSAURUS*

Over 2,000
SPECIES OF DINOSAURS HAVE BEEN CATALOGED AT PRESENT.



Herrerasaurus Length: 13 feet (4 m) | *Coelophysis* Length: 9.2 feet (2.8 m) | *Eoraptor* Length: 3 feet (1 m) | *Mussaurus* Length: 6.6 feet (2 m) | *Plateosaurus* Length: 26 feet (8 m)

TRIASSIC PERIOD 251-199.6 MILLION YEARS AGO

Dryosaurus Length: 13 feet (4 m) | *Megalosaurus* Length: 29.5 feet (9 m) | *Brachiosaurus* Length: 82 feet (25 m) | *Stegosaurus* Length: 30 feet (9 m) | *Camarasaurus* Length: 66 feet (20 m)

JURASSIC PERIOD 199.6-145.5 MILLION YEARS AGO

Therizinosaurus Length: 39 feet (12 m) | *Caudipteryx* Length: 3 feet (1 m) | *Suchomimus* Length: 43 feet (13 m) | *Giganotosaurus* Length: 49 feet (15 m) | *Corythosaurus* Length: 33 feet (10 m)

CRETACEOUS PERIOD 145.5-65.5 MILLION YEARS AGO