

Lufengosaurus (“Lufeng-region lizard”)

Pronunciation: LOO-fung-oh-SOR-us

Place: Yunnan Province, China

Age: Early Jurassic, 205 to 200 million years ago

Size: 6 metres long (20 ft)

Lufengosaurus represents the first great group of herbivorous dinosaurs, called prosauropods, and is one of the oldest Chinese dinosaurs. This eating machine occurred in great numbers in the ancient world – 82% of the fossil animals recovered from the Lufeng rock beds were Lufengosaurs.



Lufengosaurus is closely related to Plateosaurus, a well-known European prosauropod. Rising high on its strong hind legs and massive tail, Lufengosaurus probably fed on low branches of coniferous trees, well above the reach of competing plant eaters. Its strong claws may have helped it grip tree trunks and branches; they also made formidable defensive weapons. Lufengosaurus was a relative (though not a direct ancestor) of sauropods, a group of giant plant eaters of the middle Jurassic.

Bellusaurus (“beautiful lizard”)

Pronunciation: BELL-oo-SOR-us

Place: Xinjiang Province, China

Age: Middle Jurassic, 170 million years ago

Size: 5 metres long (16 ft)

Bellusaurus belongs to a group of relatively short-necked sauropods that we do not know much about. Unusually small for a sauropod, it lived earlier in the Jurassic than the long-necked giant plant eaters, like Mamenchisaurus, and was undoubtedly more agile and mobile than its huge cousins. Bellusaurus’s spoon-shaped teeth specialized in biting off tough leaves.



Mamenchisaurus (“Mamen Brook lizard”)

Pronunciation: MAH-men-chee-SOR-us

Place: Xinjiang (and Szechuan) Province, China

Age: Late Jurassic, 156 million years ago

Size: 22–25 metres long (72–82 ft)

One of the most gigantic creatures to ever walk the Earth, Mamenchisaurus also sported the longest neck of any terrestrial

animal. This plant eater had to

eat constantly to feed its monstrous

body. Considering the enormous amount of energy it would

have required to move its body, Mamenchisaurus probably

reached out its long neck like the boom of a crane, eating

every bit of plant it could reach from 4 to 15 metres above ground.



Mamenchisaurus needed a huge heart or secondary pumps to push blood through the mass of flesh and all the way to its head. For an animal the size of Mamenchisaurus, the heart may have weighed 1000 kg (a ton) or more.

Gasosaurus (“gas lizard”)

Pronunciation: GAS-oh-SOR-us

Place: Szechuan Province, China

Age: Middle Jurassic, 175-163 million years ago

Size: 3.5 metres long (12 ft)

This small flesh-eater roamed the rich middle Jurassic landscape of central China. The dagger-like teeth and strong, clawed forearms and feet were well suited to bringing down and ripping apart the plant eaters of the day. These features foretell the coming of the giant meat-eaters, such as Yangchuanosaurus, in the late Jurassic.



Monolophosaurus (“single-crest lizard”)

Pronunciation: MOH-noh-loh-foh-SOR-us

Place: Xinjiang Province, China

Age: Middle Jurassic, 170 million years ago

Size: 5 metres long (17 ft)

Monolophosaurus was one of the first giant meat-eating dinosaurs, possibly related to Allosaurus. The role of the crest on its skull is not known for certain, but it may have been a way of attracting a mate or warning off other dinosaurs.



Yangchuanosaurus (“Yangchuan lizard”)

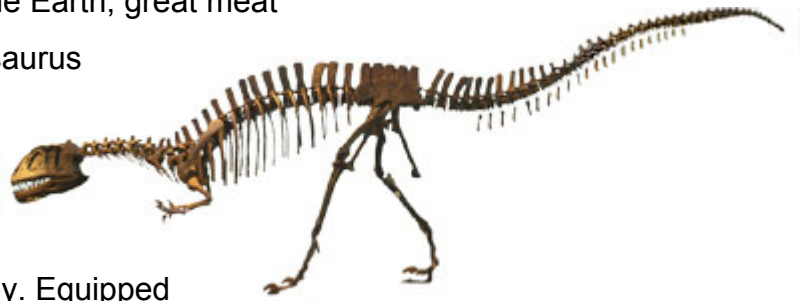
Pronunciation: YAHNG-chwan-oh-SOR-us

Place: Xinjiang Province, China

Age: Middle Jurassic, 170 million years ago

Size: 10 metres long (33 ft)

When great plant eaters roamed the Earth, great meat eaters stalked them. Yangchuanosaurus patrolled the late Mesozoic world long before the terrible tyrannosaurs, thundering about on pillar-like hind legs in search of prey. Equipped with a strongly muscled head and neck and large sharp teeth, Yangchuanosaurus could easily tear and rip into flesh. Tiny ridges on the edges of the teeth improved their cutting ability, just like a steak knife.



Tuojiangosaurus (“Tuo River lizard”)

Pronunciation: too-yang-oh-SOR-us

Place: Szechuan Province, China

Age: Late Jurassic, 157 to 154 million years ago

Size: 7 metres long (23 ft)

Most days, Tuojiangosaurus ambled about placidly munching on low-growing plants. It and other stegosaurs cropped plants from one to two metres above the ground, below the target zone for many plant-eating dinosaurs of the day.



On a bad day, though, Tuojiangosaurus had to fight for its life. The flat plates on the spine offered little resistance to the sharp claws and teeth of a hungry carnivore. Instead, it defended itself by whipping its two-spiked tail at the attacker’s belly. The bony spikes, covered in a layer of horn, made sharp piercing points.

Szechuanosaurus (“Szechuan lizard”)

Pronunciation: SHEH-chwan-oh-SOR-us

Place: Szechuan Province, China

Age: Late Jurassic, 160 to 144 million years ago

Size: 8 metres long (27 ft)

Szechuanosaurus seems to be a small version of the fierce meat-eater, Allosaurus, with the classic body of the great dinosaur

predators: upright posture, standing on two powerful hind legs; short arms

with clawed, three-fingered hands; a sturdy torso and thick neck; and a large head with pointed, curved teeth. The first fossil specimen collected

consisted only of a jaw fragment with a few teeth. While most of this animal’s body has now been found, the only parts we’ve seen of its head are teeth and that jaw fragment. Scientists are still debating about the appearance of Szechuanosaurus’s head.



Sinosauropteryx (“Chinese dragon-feather”)

Pronunciation: sine-oh-sor-OP-ter-iks

Place: Liaoning Province, China

Age: Early Cretaceous, 125 to 120 million years ago

Size: 1.25 metres long (4 ft)

Sinosauropteryx fossils show signs that this small carnivore wore a covering of primitive feathers. Perhaps it was a bird, though a flightless one, for the feathers were likely used for insulation instead of flight. Then again, it could have been a dinosaur, because the long tail and short, three-clawed arms are characteristic of Cretaceous dinosaurs. Its beak-like mouth full of sharp teeth also suggests both bird and dinosaur. We do know that Sinosauropteryx hunted small lizards and mammals. One fossil of this creature included a mammal in its stomach.



Caudipteryx (“tail-feather”)

Pronunciation: CAW-dip-TER-iks

Place: Liaoning Province, China

Age: Early Cretaceous, 125 to 150 million years ago

Size: 70–90 cm (28–35 ins)

Caudipteryx had no balancing tail and it appears more bird-like than Sinosauropteryx. Even with its plumage of true feathers, Caudipteryx could not fly. Where Caudipteryx fits in the dinosaur family tree is not well understood. Some paleontologists believe that it was a link between small meat-eating dinosaurs and birds. Now, most scientists think that it belonged to one of several “feathered dinosaur” lines, perhaps related to the oviraptors. Some scientists believe that, because Caudipteryx had feathers, all dinosaurs with a common ancestor would also have been feathered – including Velociraptor and even Tyrannosaurus rex!



Iguanodontid (“iguana tooth”)

Pronunciation: EE-gwah-NOH-don-tid

Place: worldwide

Age: Early Cretaceous, 135 million years ago

Size: 10 metres long (33 ft)

Remains of Iguanodontids have been found all over the world, the first ones in southern England in the 1820s. The numbers found at several sites suggest that Iguanodontids travelled in herds. This dinosaur stood on its hind legs and had a stiff, flat tail. It is best known for its distinctive thumb spikes, which projected at a right angle from the other four digits. These spikes may have been used to direct tree branches toward its mouth or to defend itself against predators. Its jaws and teeth reveal that it chewed like a horse.

Bactrosaurus (“club-spine lizard”, named for the club-like spines along its back)

Pronunciation: BACK-troh-SOR-us

Place: Inner Mongolia

Age: Late Cretaceous, 85 million years ago

Size: 9 metres long (30 ft)

Bactrosaurus was an early duck-billed

dinosaur and the earliest-known

crested duck-bill. We once

thought that duck-billed dinosaurs

were aquatic and munched on soft water-

plants. But the grinding teeth at the back of the jaw suggest

that Bactrosaurus chewed up tough plants such as conifer needles, twigs and seeds.



Tsintaosaurus (“Tsintao-region lizard”)

Pronunciation: ching-dow-SOR-us

Place: Shandong Province, China

Age: Late Cretaceous, 85 to 70 million years ago

Size: 10 metres long (33 ft)

Duck-billed dinosaurs ranged widely across what is now Asia and North America.

Tsintaosaurus stands out with its prominent head spike. Some scientists think that the spike supported a flap of skin used for mating displays; it may also have helped amplify the animal’s calls.



Psittacosaurus (“parrot lizard”)

Pronunciation: see-tack-oh-SOR-us

Place: Shandong Province, China

Age: Early Cretaceous, 135 million years ago

Size: 2.5 metres long (8 ft)

One of the smallest and earliest ceratopsians (horned dinosaurs), Psittacosaurus had the characteristic parrot-like beak. But unlike other ceratopsians, such as the later Protoceratops and Triceratops, this dinosaur had no frill extending from the back of its skull.

The short forelegs grasped plants while the animal picked off and cracked open large, hard-shelled seeds and stripped off leaves. The long muscular hind legs helped it run from predators.



Protoceratops (“first horned-face”)

Pronunciation: pro-toe-SER-ah-tops

Place: Inner Mongolia

Age: Late Cretaceous, 85 million years ago

Size: 2 metres long (6.5 ft)

Frilled ceratopsians (horned dinosaurs) were common in the late Cretaceous. Resembling the modern rhinoceros, these herbivores travelled in small groups, likely eating tough plant stems that they sheared off with their beaks.

The fossil record of Protoceratops is good, including eggs, young and adult specimens. It is the most common fossil found in southwestern Mongolia. Ancient reports suggest that these fossils may have inspired the Greek myth of the griffin, because Mongolia was an important source of gold for the Greeks. The beak of the griffin may have its origin in the beaked mouth of the Protoceratops and its wings in the dinosaur’s frilled collar.



Velociraptor (“speedy plunderer”)

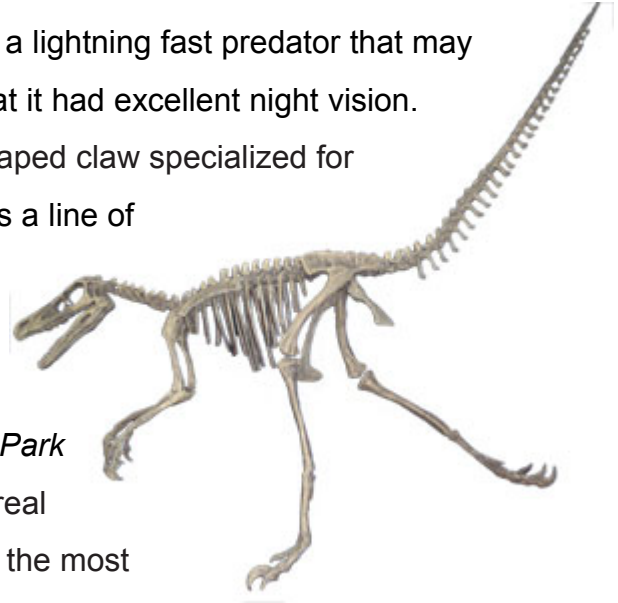
Pronunciation: ve-LAW-see-RAP-tor

Place: Inner Mongolia

Age: Late Cretaceous, 85 to 70 million years ago

Size: 1.5–2 metres long (5–6.5 ft)

Large-brained and lightly built, Velociraptor was a lightning fast predator that may have hunted in packs. Its large eyes suggest that it had excellent night vision. One toe of each foot bore a 9-cm long sickle-shaped claw specialized for catching and killing prey. Velociraptor represents a line of terrestrial hunting dinosaurs that developed at the same time as birds.



The Velociraptors made famous in the *Jurassic Park* movies were much larger and smarter than the real thing. Real Velociraptors may have been one of the most intelligent dinosaurs, but they were not, as characterized in *Jurassic Park*, as smart as chimpanzees.