

## Sauropods of the Mesozoic Era

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Camarasaurus is an unusual sauropod. It has large zygapophyses. Dinosaurs could be cold blooded or warm blooded. It's a large mystery. Sauropods were once known to live in the water. The truth is they live on land. Fully-grown sauropods will automatically react to the youngsters when they're in danger. Sauropods probably have strong vertebrae so they can hold massive weights on their back. Brachiosaurus might have many hearts to be powerful enough to pump the blood up their necks.

### CAMARASAURUS AND ITS VERTEBRAE

Sauropods were the largest creatures ever to roam the land. Camarasaurus is an unusual sauropod because it has large zygapophyses that means it can raise its neck very steeply. Many sauropod eat the leaves on the tree-tops. That includes Camarasaurus.



Fig. 1. Camarasaurus munching the trees using vertebrae with large zygapophyses.

The vertebrae of Camarasaurus is hollow like most of the graceful sauropods. Camarasaurus can't fight with its tail because its tail vertebrae is not very strong. If it did its tail would not last long at all! (Martill and Naish 2000). There's been a skeleton of a Camarasaurus that is only two years old and it was already 19 feet long!!! Coelophysis is a dinosaur that has a highly agile body so it obviously has fairly large zygapophyses. All dinosaurs' necks have at least two vertebrae.

### ARE THE DINOSAURS COLD BLOODED OR WARM BLOODED?

The dinosaurs could be cold blooded and could be warm blooded. No-one actually knows for sure that they are either, but many have studied it and some think they are warm blooded. It may be that some are warm blooded and the rest are cold-blooded. It may be that the only link to the true answer is the fossilised Tyrannosaurus blood. Even though there are some fossilised blood it is still a mysterious matter.

### DO SAUROPODS LIVE IN THE WATER?

Many people once believed that most sauropods lived in the water because they have long necks so they could lift their heads clear of water to breathe. They do not really live on the water because they would not survive the immensely high pressure. Even though they can not live in water they can walk a-sort of in it. Then it goes up to the sauropods' knees. All of them need to drink so they need lakes to drink from them. That means that they must not get the lakes taken away! Sauropods would not last long at all if they lived in deep places!!

### SAUROPODS – LOCOMOTION

If there's a fire near, sauropods will get away from it as fast as they can but they are so massive and heavy they can only walk the speed we do! If there's a predator near they will pay no attention to it! Their sheer size will scare off the predator!!! If the young get near a predator they'll keep away. If a youngster is in danger and they're aware, they will call out to an adult of their kind or an entire herd of their kind and the herd or adult will automatically react to it by protecting the youngster.

### HOW DO SAUROPODS SUPPORT GREAT WEIGHT THAT GETS ONTO ITS BACK?

The massive sauropods support those weights with strong vertebrae. They use that strength when another of its kind mates with them and the mater hugs the other of its kind!! The way they hug is that one sort of rests on the other one with its front legs down its body-sides. The one underneath would have to carry at least another ten tonnes on its back. The great spiked dinosaur Stegosaurus seems to mate the same way as the gigantic sauropods. In between the times 1742 and 1980 the true answer to the way they mated was ridiculously unknown to our planet.

#### HOW DO THE BRACHIOSAURS PUMP THEIR BLOOD UP THEIR NECKS?

It is a mystery to both my family and the rest of the planet how the brachiosaurs manage to pump the blood right up their necks. I have had some ideas about how they actually get blood right up their neck. My favourite idea is that they have not only one heart but hundreds, some of the mammals' kind of heart and some of the reptiles' kind or maybe even a new kind or two that Earth has never seen or heard of. Another idea is that they simply have one massive heart that is about the size of a small car and very very powerful!!! And another is that they have two hearts as big as a bed that will pump and pump never getting tired like the heart of a human.

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#### LITERATURE CITED

Martill, David M., and Darren Naish. 2000. Walking with Dinosaurs: the evidence. BBC Books, London. 160 pp.