


★ ★ ★ ★ ★ ★ ★ ★ ★ ★ Paleontological Society of Austin ★ ★ ★ ★ ★ ★ ★ ★ ★

This illustration depicts three different species of marine reptiles. On the left, a large *Clidastes* is shown in a curved, swimming posture. In the upper center, a smaller *Dallasaurus* is shown swimming. On the right, a *Platecarpus* is shown in a more horizontal, swimming posture. The background is a light blue gradient, suggesting an underwater environment.

They were powerful swimmers, and were well-adapted to living in the warm, shallow inland seas prevalent during the Late Cretaceous Period – including the Western Interior Seaway that covered part of what is now Texas. Their bodies were shaped much like modern-day monitor lizards, but were more elongated and streamlined for swimming. Their limb bones were reduced in length and their paddles were formed by webbing between their long finger and toe bones. Their tails were broad, and supplied their locomotive power.



Tylosaurus ⁵

Until recently, mosasaurs were assumed to have swum by undulating their entire bodies from side to side. New research shows that many advanced mosasaurs had large crescent-shaped fins on their tails, similar to those of sharks and some ichthyosaurs. Instead of snake-like undulations, their bodies probably remained relatively stiff through the water, while their tails provided strong propulsion.

Who Ate Who?


What did mosasaurs eat? The big ones ate pretty much whatever they wanted - ammonites, fish, squid, birds, anything they could swallow. *Tylosaurus* could eat

Cretoxyrhina mantelli was the largest shark of the late Cretaceous (20 feet long) and was among the chief predators of the seas. It is nicknamed the Ginsu shark in reference to the Ginsu knife, since it fed by slicing into its victims with its knife-sharp teeth. In addition to mosasaurs, it preyed on a variety of other marine animals, including plesiosaurs like *Elasmosaurus*, bony fish like *Xiphactinus*, and huge turtles like *Archelon*.



*Cretoxyrhina mantelli*⁶

*Xiphactinus*⁸



A fossilized skeleton of a large sea turtle, Archelon, shown against a blue background. The skeleton is complete, including the carapace, plastron, and all four limbs with claws. The text "Archelon 9" is visible in the upper right corner of the image area.



*Asterocheras*⁷



Tylosaurus pembinensis ¹⁰

See Them

Further afield, both the Houston Museum Of Natural Science and the Perot Museum of Nature and Science in Dallas have great exhibits.