

Stegosauria (Mesozoic)

GEOL 204 The Fossil Record

Spring 2020 Section 0102

Grace Kikuchi, Rohan Sharma, Javier Ortiz, Alex Cohen

Background

- Stegosaurus comes from Greek; Stego= roof and Sauros= lizard
- Stegosauria is a clade of Thyreophora “armored” Ornithischian dinosaurs known from Middle Jurassic to Lower Cretaceous strata worldwide.
- Herbivorous, mostly feeds on moss and cycad
- Thrived during the Late Jurassic when they were an important part of the global terrestrial fauna.
- Diversity appears to have decreased after the Jurassic
- Thought to be extinct by the Middle Cretaceous

Fossil History (A+B+C)

- First partial skeleton discovered in a brick pit in the UK in 1874. Since then, numerous have been discovered from Europe, North America, Africa and Asia.
- Geographically widespread
- Only partial skeletons and highly incomplete material are widely available for this species which has made it hard to get a complete view of these dinosaurs
- In Shell, Wyoming one very well preserved specimen was found, which is very unusual

Build (A+B+C)

- Stood 26-30 feet long and 9 feet tall
- Weighed in at about 6,800 pounds
- Stegosaurus are known to have shorter necks and legs and a quadrupedal stance
- Possesses alternating plates and terminal spikes (vary depending on age)
 - Spikes can function as offensive or defensive but plates are strictly defensive
- Have a double row of plates which is a distinguishable trait in all stegosaurians
- -Elongated and flat heads

Diversity of Stegosaur (E)

- As seen here there are four different varieties of Stegosaur pictured and they all vary slightly.
- The Stegosaurus stenops has the most broad spinal plates out of these varieties.
- The Tuojiangosaurus multispinus had at least two, sometimes three, outward pointing robust spikes on the end of the tail.
- The Kentrosaurus aethiopicus is a smaller member of stegosauria and they can be distinguished by how in the front third of the tail the extensions of the vertebrae point backwards like usual. However, towards the middle of the tail they point essentially straight up.
- The Huayangosaurus taibaii is a smaller stegosaurian as well. They can be distinguished by not only their size but also their smaller and more squared off snout in comparison to all of the other more slender snouts on other members of Stegosauria.



Skeleton of *Stegosaurus* displayed at the National Museum of Natural History

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