Stegosaurus: the Dinosaur with the Smallest Brain

Elizabeth J. Sandell, Minnesota State University, Mankato

Document Type
Book

Publication Date
1988

Department
Elementary and Early Childhood Education

Abstract
An introduction to the physical characteristics, habits, and natural environment of the plant-eating dinosaur who measured between twenty and thirty feet but whose brain was about the size of a walnut shell.

Recommended Citation

Publisher's Copyright and Source
Copyright © 1988 Bancroft-Sage Publications.

Stegosaurus had a relatively low brain-to-body mass ratio. It had a short neck and small head, meaning it most likely ate low-lying bushes and shrubs. It was the largest of all the stegosaurians (bigger than genera such as Kentrosaurus and Huayangosaurus) and, although roughly bus-sized, it nonetheless shared many anatomical features (including the tail spines and plates) with the other stegosaurian genera. The endocast showed that the brain was indeed very small, the smallest proportionally of all dinosaur endocasts then known. The fact that an animal weighing over 4.5 metric tons (5 short tons) could have a brain of no more than 80 grams (2.8 oz) contributed to the popular old idea that all dinosaurs were unintelligent, an idea now largely rejected. Stegosaurus has the smallest brain cavities in relationship to size. With a brain roughly the size of a walnut, this dinosaur was not capable of highly intelligent activities. Due to this lower intellect, grazing and daily functions were probably the extent of its ability. Stegosaurus was an herbivore. Living the life of a low browser found this dinosaur grazing on leaves, flowers, grasses, water lilies, and similar vegetation. The Stegosaurus had many cousins from around the world, differing in size and appearance.