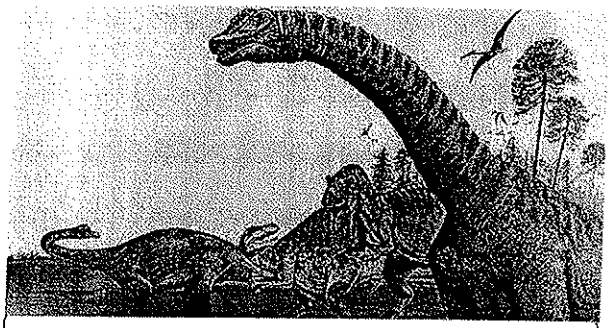
The Gassy Dinosaur Effect

Plant-Eating Dinosaurs May Have Contributed to Prehistoric Global Warming

May 09, 2012

By Kelli Plasket

Background



A new study says sauropods may have contributed to Earth's warmer climate during the Mesozoic era.

Around 200 million years ago, Earth was 18 degrees warmer than it is now. That might be a bit hot for humans, but it was just right for the giant dinosaurs that roamed the globe during the Mesozoic era. A new study found that plant-eating dinosaurs may have contributed to the warming of the Earth by releasing significant amounts of methane gas—through their flatulence (farts) and burps.

The study, published in science journal *Current Biology*, focused on sauropods, long-necked herbivores that munched on the top of trees. They were the largest of the dinosaurs; food fermented, or broke down, in their stomachs for long periods of time. The researchers estimate that a sauropod released 2,675 liters of methane gas per day—adding up to a large amount of the greenhouse gas being pumped from dinosaur guts into the atmosphere. What a gas!

Making Methane

Plant eaters naturally release methane gas as part of their digestive process. The larger the animal, the more methane it produces. Methane, a

greenhouse gas, traps heat and remains in the atmosphere for approximately 9-15 years, which warms the atmosphere.

Today, livestock animals, such as cattle, goats and sheep, produce large amounts of methane as a byproduct to their food digestion. Methane is also released from human-influenced sources such as landfills, agricultural activities, coal mining and other industrial practices—which all contribute to today's climate change, according to the Environmental Protection Agency.

The dinosaur study's researchers estimate that Earth's sauropods would have produced about 520 million tons of methane gas per year—similar to the total amount of methane produced today by natural and man-made sources. However, the researchers warn that their numbers are estimates based on multiple assumptions about the digestive systems and populations of dinosaurs.

! wow that's a lot !

STUDY RESULTS

Study author David Wilkinson says the dinosaur's methane gas emission would have been just one of the causes of the Mesozoic's warm climate. Other causes include gas produced from volcanoes, swamps, shallow seas and more. Still, Wilkinson says, "[Dinosaur gas] is big enough to be a measurable effect."

? why is it a measurable effect ?

Written Notes

The Gassy Dinosaur Effect

8/15/13

Background

- 200 million years ago dinosaurs lived in the Mesozoic era
- The dinosaurs produces methane gas

Making Methane

- Herbivors natrually release Methane as a part of their digestive system.
- they release 520 million tons of methane per year.
- methane as a byproduct

Study Results

- David Wilkinson said that Methane is big enough to be a measurable effect.

Summary:

In the Story the "Gassy Dinosaur Effect", I think it was about how these dinosaus produces Methane. The dinosaurs lived in the Mesozic era. Researchers estimated that they produce about 2,675 liters of methane gas per year.

The Gassy Dinosar Effect 8/15

Background is

- Earth was 15 degrees warmer then it is now
- It was 200 million years ago
- Plant eating dinosaurs released amounts of gas to make it warmer

Making Methane

- Plant eaters naturally release methane gas as part of their digestive proces. the larger the animal, the mor methane it produces
- greenhouse gas, traps heat
- approximately 9-15 years

study results

- Dinosaur gas is big enough to be a measurable effect
- methane gas emission would have been just on of the causes of the mesozoics warm climate

summary: 200 million years ago the earth was 15 degrees warmer than it is now! The dinosours released gas to make it warmer. It is part of their digestive process. It is big enough to be a measurable effe