

Brontosaurus is back! New analysis suggests genus might be resurrected

Despite its relegation to a subset of the Apatosaurus family in 1903, new research suggests that the Brontosaurus is distinct enough to be a genus

By Hannah Devlin, Tuesday 7 April 2015

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The Brontosaurus has been consigned to extinction not once, but twice – the second time when scientists concluded it was too similar to other long-necked dinosaurs to deserve its own genus.

Now the “thunder lizard” looks set to make a comeback, after a new analysis suggests that Brontosaurus specimens are sufficiently distinct from other species after all.

The team behind the findings hope they will trigger the resurrection of the Brontosaurus moniker, more than 100 years after it was discarded by academics.

“It’s a nice example of how science works. A new finding can overturn more than 100 years of beliefs,” said Emanuel Tschopp, who led the study at the Nova University in Lisbon.

The first Brontosaurus specimen was unearthed during the so-called “Bone Wars”, when rival scientists were competing to name as many new specimens as possible. The paleontologist Othniel Charles Marsh hastily declared Brontosaurus to be a new

genus in 1879, two years after naming another bulky long-necked specimen, the Apatosaurus (deceptive lizard).

The discovery of a third intermediate species cast doubt on the claim, however, suggesting the whole lot would be more sensibly designated as a single group. By 1903, the Brontosaurus had been relegated to A. Excelsus, a subset of the Apatosaurus family – but to the present day it has lived on as a mainstay in popular culture.

“It’s like a scientific zombie that has kept shambling on for one reason or another,” said [Brian Switek](#), author of *My Beloved Brontosaurus* and amateur palaeontologist based in Utah. *“Partly, it’s just a wonderful name. It sounds big.”*

Brontosaurus Rising

By Elif Batuman, April 7, 2015

newyorker.com



For the first time in more than a century, admirers of the brontosaurus no longer need to defend their beloved dinosaur from [accusations of nonexistence](#). Since 1903, the scientific consensus has been that the brontosaurus wasn't actually different enough from the apatosaurus to deserve its own genus, and that it should therefore be known, in museum exhibits and in polite discourse, as a species of apatosaurus. But a new [taxonomic study](#), released on Tuesday, seems to say the opposite. Researchers from Portugal and the United Kingdom have evaluated eighty-one diplodocid fossils—including specimens of *Apatosaurus ajax* (the first described apatosaurus) and *Apatosaurus excelsus* (the dinosaur formerly known as brontosaurus)—for a total of four hundred and seventy-seven morphological characteristics. “The differences we found between *Brontosaurus* and *Apatosaurus* were at least as numerous as the ones between other closely related genera, and much more than what you normally find between species,” Roger Benson, a professor of paleobiology at Oxford University, said.

In his essay “Bully for the Brontosaurus,” the paleontologist [Stephen Jay Gould](#) characterized the naming controversy as “a direct legacy of the most celebrated feud in the history of vertebrate paleontology”—the rivalry between [Edward Cope and Othniel Marsh](#). The Bone Wars, as this phase in American natural history came to be known, began in the aftermath of the Civil War, when the two East Coast paleontologists headed west to investigate the giant bones that were being turned up during the construction of the Union Pacific Railroad. It ended only in the eighteen-nineties, with the ruin and death of the two central characters. (...)

One result of the Bone Wars was that dinosaurs were left with an overabundance of names. Because both Cope and Marsh “wanted to bag as many names as possible,” Gould writes, “they frequently gave names to fragmentary material that could not be well characterized.” Between them, for instance, they managed to give some two dozen names to a single species of triceratops. In 1903, Elmer S. Riggs, of Chicago’s Field Museum, looked over two of Marsh’s cursorily described specimens—the *Apatosaurus* of 1877, and the *Brontosaurus* of 1879—and concluded that they belonged to the same genus. The more recent name, *Brontosaurus*, would be discarded in favor of the older one.

Over the years, [belief in the brontosaurus](#) became a badge of melancholy [quixotism](#). “We brontophiles have been defeated,” Stephen Jay Gould wrote mournfully, in 1991. “They have won.” He ended his essay with a reflection on a brontosaurus-themed twenty-five-cent stamp issued by the U.S. Postal Service in 1989, over the objections of the Smithsonian Institution and the Paleontological Society. Gould hoped, he wrote, “that rectification may someday arise from the ashes of my stamp album”—and so it has. Probably. “Brontosaurus has been resurrected as a distinct genus,” Frank T. Krell, of the [International Commission on Zoological Nomenclature](#), told me in an e-mail. But the final say on the issue will belong to the paleontological community. “I have already heard that there are hot debates amongst dinosaur researchers, and this is good,” he said.