

Students' sharp eyes restore dinosaur's rightful name

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Three U of A paleontology students helped restore *Dyoplosaurus*' rightful name

(PhysOrg.com) -- Three graduate students in paleontology blew dust off dinosaur toes found in 1924 to discover that something didn't quite add up. After examining a few more fossilized bones, they concluded that a 1970s reclassification of the dinosaur's species was wrong, and that the original paleontologist had it right the first time around.

PhD candidate Victoria Arbour was one of three University of Alberta students studying a 76 million-year-old ankylosaur, an armadillo-like dinosaur about four metres long. It was found in 1924 in southern Alberta by the late Canadian [paleontologist](#) William Parks.

"From a partial set of fossilized bones, Parks concluded that it was a new

species of ankylosaur that he named *Dyoplosaurus*, or double-armoured dinosaur," said Arbour. "But in the 1970s a new set of researchers came along and reclassified Park's find as another ankylosaur species called *Euoplocephalus*."

Arbour and fellow students Mike Burns and Robin Sissons weren't thinking about the reclassification issue when they went to the Royal Ontario Museum in Toronto for a close look at Parks' discovery.

"We were all interested in ankylosaurs, but we were all focused on different parts of the skeleton," said Burns, who examined the dinosaur's body armour and skull. Arbour focused on the animal's [pelvis](#) and clubbed tail. Sissons was interested in how the animal got around and looked closely at its foot and limb mechanics.

"There was something different about the toes on this specimen," said Sissons. "It didn't match the structure of the dinosaur species it had been reassigned to by the 1970s researchers."

That's when the grad students began questioning the reclassification. "I found the pelvis didn't match up with what we know about *Euoplocephalus*," said Arbour. When Burns found the texture of the dinosaur's armoured plates also differed from the *Euoplocephalus*, the students realized they were all finding inconsistencies with the reclassification.

Still, they needed to compare their findings with one more dinosaur collection, just to make sure. "I went to the American Museum of Natural History in New York and examined their ankylosaur collection," said Arbour. "I found the same small differences that confirmed for us Parks had identified his dinosaur correctly as *Dyoplosaurus*."

Despite the trio's success, there was no uncorking of champagne. "The

Eureka moment passed quietly," said Arbour. "The 1970s researchers didn't think Parks' find was different enough from other ankylosaur finds to warrant classification as a separate species."

The students say Parks was justified in branding his ankylosaur find as the species

Dyoplosaurus, and their findings were published this month in the *Journal of Vertebrate Paleontology*.

Provided by University of Alberta

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