

# Competition may have led to new dinosaur species in Grande Prairie area

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Tetsuto Miyashita and Frederico Fanti

(PhysOrg.com) -- The discovery of a gruesome feeding frenzy that played out 73 million years ago in northwestern Alberta may also lead to the discovery of new dinosaur species in northwestern Alberta.

University of Alberta student Tetsuto Miyashita and Frederico Fanti, a paleontology graduate student from Italy, made the discovery near Grande Prairie, 450 kilometres northwest of Edmonton.

Miyashita and Fanti came across a nesting site and found the remains of baby, plant-eating [dinosaurs](#) and the teeth of a predator. The researchers matched the teeth to a Troodon, a raptor-like dinosaur about two metres in length. This finding has opened new doors in dinosaur research on this part of the continent: "It established that dinosaurs were nesting at this high latitude," said Miyashita. "It also shows for the first time a significant number of Troodons in the area [who] hunted hatchling dinosaurs."

Over the course of two summers of field work Miyashita and Fanti began building a theory that Grande Prairie is a "missing link" between known dinosaur species that existed much further to the north and south. "Prior to this there were no localities with a variety of dinosaurs and other animals between Alaska and southern Alberta," said Myiashita. The list of new finds for the area includes armoured and thick-headed plant eaters and fossilized freshwater fish and reptiles.

Miyashita says this small pocket of previously undiscovered life could have had interactions that lead to the evolution of new species.

"New dinosaurs weren't created by interbreeding," said Miyashita. "Having a variety of dinosaurs in one area creates new ecological interactions such as competition for food and predation.

"That can lead to the evolution of a new species."

One Grande Prairie dinosaur the researchers suspect is a new species is the Duck bill. Miyashita says unlike the Duck bill found further north in Alaska, the Grande Prairie has a visible bump or crest on its forehead.

Miyashita is counting the days until Fanti returns from Italy and the Grande Prairie exploration is continued. Right now it's scheduled for summer 2010.

"I don't have any dream dinosaur find in my mind," said Miyashita. "The best find is the one you can't even imagine. You'll know it's the one when you're jumping with joy."

More information: Miyashita and Fanti's work was published this month in *Palaeogeography, Palaeoclimatology, Palaeoecology*.

Source: University of Alberta ([news](#) : [web](#))

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