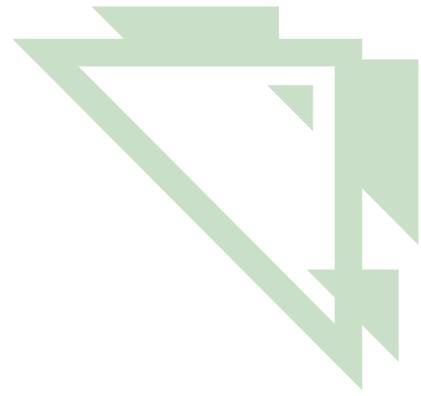


# SPECIMEN FACT SHEET



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Thousands of cubic metres of soil, gravel, and bedrock are excavated in Alberta every year. When fossils are exposed through industrial activities, palaeontologists work with companies to excavate and preserve scientifically important specimens.

*Grounds for Discovery* introduces visitors to some of the incredible fossils that have been found through industry, and the workers who found them.

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## ***Borealopelta markmitchelli***

A new genus and species of armoured dinosaur

- The best-preserved armoured dinosaur in the world, including skin and armour, complete from the snout to hips.
- Discovered by a worker in the Suncor Millennium Mine in March 2011.
- The oldest known dinosaur ever found in Alberta (112 – 110 million years old).
- Preserved in 3D, encased in intact body armour. It is so well preserved that most of the skeleton cannot be seen due to the amount of fossilized skin.
- It took over 7,000 hours to prepare this specimen for research and display.

## **Pantodont**

A new genus and species of a large mammal that lived 60 million years ago

- Although it has an impressive set of teeth, the pantodont was a herbivore that ate soft plants and perhaps fungal material.
- Its large claws were probably used for digging.
- Pantodonts were the first group of mammals to evolve a truly large body size following the mass extinction at the end of the Cretaceous Period, 66 million years ago.
- It was found during road construction east of Red Deer in 2001.





## Theropod Trackway

West-central Alberta has not produced many dinosaur skeletons, but it has preserved some of the best examples of dinosaur footprints in the world

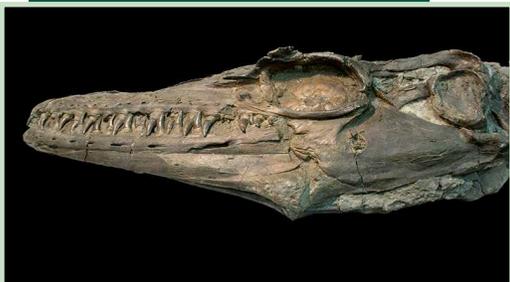
- Footprints are known as “ichnofossils.” They are trace fossils that offer important information about how animals moved, and interacted with their environments, and with each other.
- This slab of footprints reveals that three small- to medium-sized theropods (bipedal carnivores) were walking on a mudflat and sinking up to their ankles in mud.
- More than 10,000 dinosaur footprints have been uncovered through mining activities in the Smoky River Coalfield near Grande Cache.



## *Nichollssaura borealis*

Carnivorous marine reptile

- One of the oldest and most complete Cretaceous Period plesiosaur fossils ever found in North America.
- Lived in the Western Interior Seaway 112 million years ago.
- Found in 1994 at the Syncrude Canada Base Mine near Fort McMurray.



## *Mosasaurus missouriensis*

Large marine reptile found in the Korite Ammolite mine

- One of five large marine reptiles found in the mine.
- It lived 75 million years ago.
- A mosasaur tooth is embedded under one eye in the skull of this specimen. From preliminary research, it's believed this mosasaur was attacked from below by another mosasaur (possibly for territorial or mating reasons).



## Fish Block

Found while excavating a basement in the Evanston area of Calgary

- There are two types of fishes preserved in this block of five specimens.
- They are 62 million years old.
- Two of the fishes are a new species of the genus *Joffrichthys*, *Joffrichthys tanyurus*, and three are a new genus and species, *Lopadichthys colwellae*.

## Contact

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