

FOSSILS IN FOCUS



The Museum's collection of fossils is vast and diverse. The majority of specimens have been found right here in Alberta, the most remarkable place in the world to find fossils from 80 – 55 million years ago.

Only a fraction of our collection is on display throughout the Museum. This rotating exhibit will highlight some of our most remarkable and scientifically significant fossils, chosen from the tens of thousands of specimens in our collection.

New specimens reflecting current research will be added as the science of palaeontology moves forward.

2017 SPECIMEN FACT SHEET

SCIENCE AND ART MEET

- Spores and pollen, along with other organic-walled microfossils, are the most abundant fossils found in Alberta.
- Art meets science by blown glass depicting the complexity and structure of the original fossil specimens.
- Palynologist Dr. Dennis Braman has identified over 1000 types of pollen and spores from Late Cretaceous Alberta.
- These glass models pollen and spores are 4600 times their real size.

WHAT SMALL TEETH YOU HAVE

- A new species of multituberculate — extinct rodent-like mammals, named for their teeth.
- Over 200 species of multituberculates are known from throughout their 165-million-year existence.
- Over 15 species of multituberculates are known from this fossil locality along the Sheep River in Alberta.
- These upper and lower teeth are about 65 million years old.





FROM THE DEEP

- Found in southwest Alberta, at Parks Canada Ya Ha Tinda Ranch, this is the first *Konservat Lagerstätte* known from North America.
- A *Konservat Lagerstätte* is a deposit of exceptionally preserved fossils, where soft body parts have been fossilized.
- Examples on display include a crinoid, a bony fish, and a belemnoid with soft tissue preserved.
- The Ya Ha Tinda assemblage preserves articulated vertebrates: fishes, ichthyosaurs, crinoid, crustaceans (shrimp and lobsters) brachiopods, abundant molluscs (ammonites, gastropods [snails], and bivalves [clams and oysters]), wood, and microfossils.



A TALE OF TWO HADROSAURS

- Two newly discovered hadrosaur (duck-billed dinosaur) skulls are being studied to see if they are new species, or belong to the same species of hadrosaurs found in the United States.
- Hadrosaurs are separated into two groups: hadrosaurines had either no crest, or a solid crest. Lambeosaurines had elaborate, hollow crests.
- One skull was found by a father and his sons who were fishing on Castle River. It was encased in a large boulder weighing 1133 kg.
- The other skull was found near Spirit River during a pipeline excavation. It represents one of the oldest known hadrosaurs from Canada.



FORGOTTEN FROND

- A new species of *Sabalites*, palm fossils are excellent indicators of past climates.
- A palaeobotanist was examining the collection of the Royal Tyrrell Museum when he noticed an unusually small fossilized palm leaf.
- This is the first time a fossil palm has been reported from rocks younger than the Age of Dinosaurs from Alberta, or anywhere in Canada, east of the Rockies.
- This 65-million-year-old palm fossil provides evidence that Alberta was relatively warm and wet during the early Palaeocene, but not tropical.



FISH AND BITS

- Fish skeletons do not often fossilize articulated (bones found in the same position as they were when the animal was alive).
- *Notogoneus osculus* was a milkfish that was preserved whole in a deep lake formation in Wyoming, 52 million years ago.
- Isolated vertebrae found in Dinosaur Provincial Park have been identified as belonging to *Notogoneus*, providing the first evidence that this genus of fish lived in Alberta 74 million years ago.
- Small isolated bones and teeth can help identify fishes.

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