



Fossil Management Office
Heritage Branch



An Introduction to Fossils



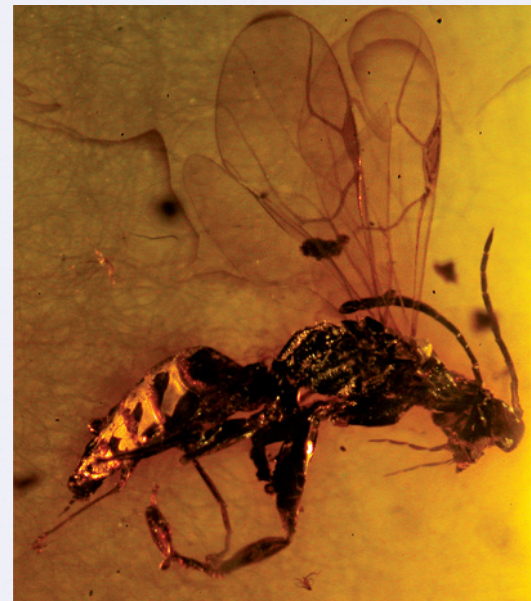
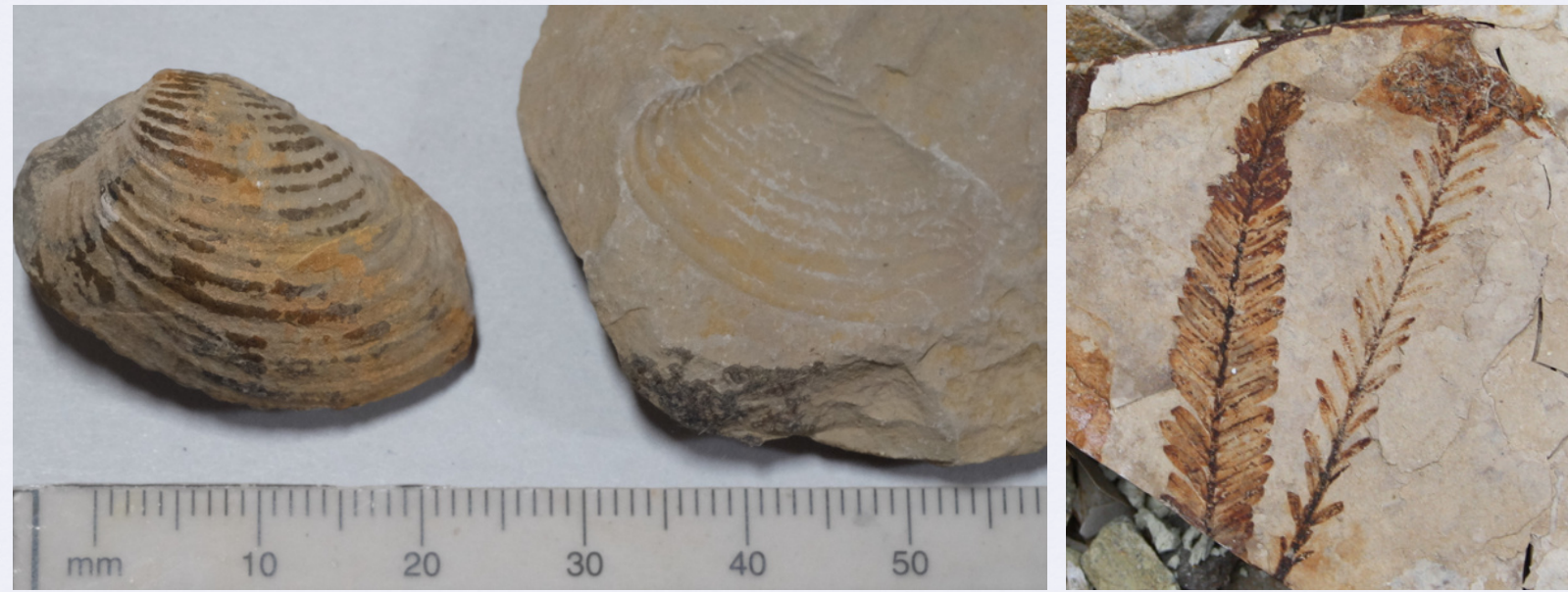


What is a fossil?

The study of fossils is called Paleontology!

Fossils are the preserved remains of past life.

What do you think of when you hear the word fossil?



What is a fossil?

Fossils come in many different shapes and forms and can be found all over the world!

Fossils are not just bones. They can be leaves, shells, footprints, seeds, eggs, feces, insects, wood and more.

What is a fossil?

Fossils can be sorted into two categories: **Body Fossils** and **Trace Fossils**

Body fossils are fossils of a plant or animal
examples: shells, bones, teeth, and leaves

Trace fossils are fossils that record the activity of an organism
examples: burrows, footprints, and feces





Body Fossil or Trace Fossil?





Body Fossil or Trace Fossil?



This is a **trace fossil**! It is the footprint of a **theropod** that was found here in B.C.

Theropod is a word used to describe a group of dinosaurs that walked on their back legs, had small front limbs and ate flesh.

Does the footprint remind you of any other animal?

Pseudofossils

Pseudofossils are inorganic objects that look like fossils but are not fossils

This is an example of a **pseudofossil**. It may look like feces, but it's actually a rock! Fossilized feces are called **coprolites**.



Pseudofossils

It's really easy to mistake minerals for fossils!



Pseudofossil



Dinosaur Eggs



Coprolite



Pseudofossil



Is This a Fossil?



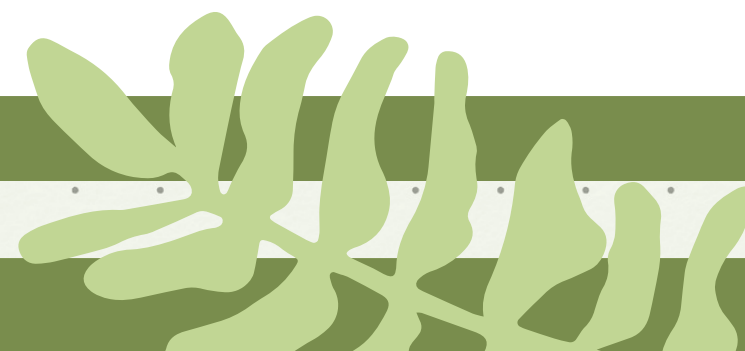
Is This a Fossil?



Nope! This isn't a fossil. It is the **shell of a helmet crab**, found in Victoria, B.C.

While crab shells can become fossilized, this takes a very long time and this crab was only recently dead.

What are some ways you could tell a regular crab shell from a fossilized crab shell?



Body Fossil Preservation



There are lots of different ways that organic matter can be preserved.

- Original Material
- Replacement or Mineralization
- Cast & Mold
- Compression



Original Material



Bark louse trapped in amber,
1 cm in length.

An **unaltered fossil** refers to when original material of an organism is not changed. In some cases, tissues can even be preserved!

Examples: amber, mummified remains, unaltered bones and shells



Replacement or Mineralization



A slice of "petrified" wood.

Mineralization occurs when porous bone or shell or woody tissue of plants have spaces filled with minerals.

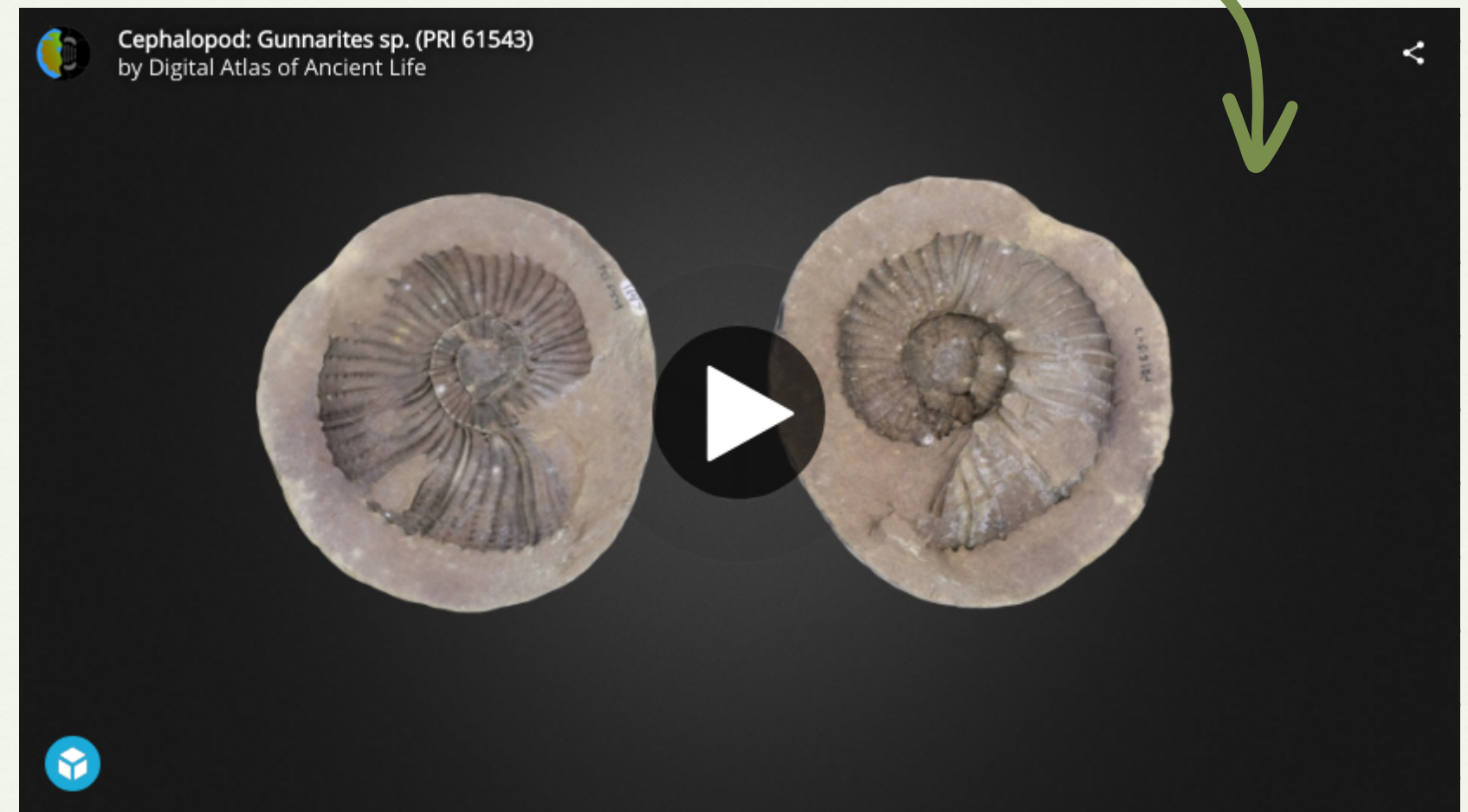
Example: "petrified" wood



Cast & Mold

A **mold** or **impression** forms when a bone or shell dissolves, leaving a space in the rock. If the mold fills in with sediment or minerals, a **cast** of the original is formed.

You can interact with this model by going to <https://skfb.ly/6RRsD>



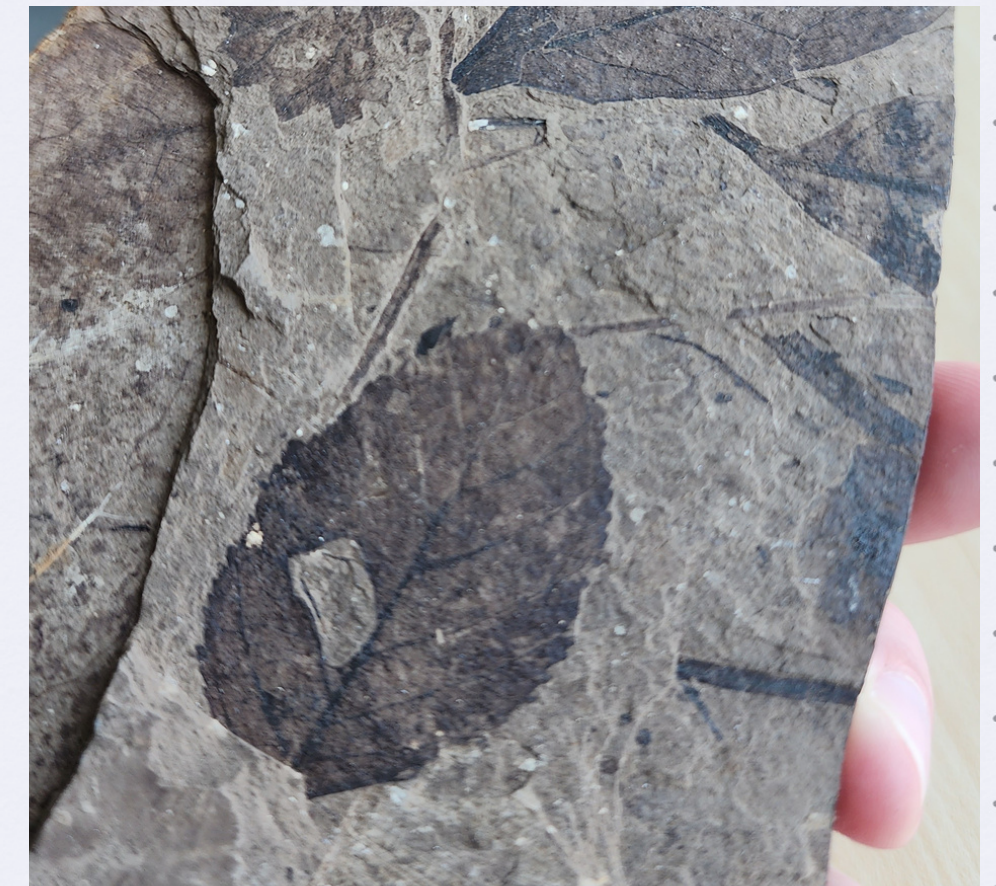
This is an example of a cast and mold.

Compression

Compression of the organism in rock layers can leave a carbonized imprint of the fossil, which is common with plant material.



Metasequoia from McAbee Fossil Beds Heritage Site.



Unspecified leaves from McAbee Fossil Beds Heritage Site.