

Guidelines for Recreational Fossil Collection

Introduction

Recreational fossil collectors, sometimes called amateur paleontologists or citizen scientists, can make important fossil discoveries.

Rules about Recreational Collection

There are three main rules to remember about recreational collection:

1. You can only collect common fossils from the land surface
2. You become a caretaker of a collected fossil - not the owner
3. You have a checklist of responsibilities as a caretaker

Rule One - Common Fossils from the Land Surface

What Fossils Can Be Collected

All fossils are non-renewable resources, part of the land's natural heritage and important to science.

Rule one is that you can only collect common fossils from the land surface. Recreational collection of fossils is not considered a serious threat to paleontological sites if the fossils are common, meaning not considered scientifically significant (more below).

If you don't know the difference between common and significant, or if you are unfamiliar with an area, we encourage you to join a local paleontology society (see section below).

Fossils at the site must be abundant enough that collecting a few will not deplete the site. Collection must be from the surface only, with hand tools, and for recreation purposes, not commercial purposes.

Significant Fossils

The significance of a fossil or fossil site relates to its scientific, educational, and heritage value that adds substantially to existing knowledge of B.C.'s paleontology and geological history.

Significant fossil finds include:

- A fossil type or site new to science or rare in B.C. such as vertebrate fossils and vertebrate trackways
- A site with exceptional preservation such as whole invertebrate or plant fossils (not fragments)
- A site with diverse assemblages of fossils
- A site that provides important context about the age of rocks, paleogeography (past geography) or ecology, or evolution

- A site that contributes to public education and understanding of the Earth
- A site with exceptional abundance or associations of fossils

If a fossil or fossil site meets any of the significant fossil criteria listed above, you are asked to report the discovery to the BC Fossil Management Office or Royal BC Museum.

www.gov.bc.ca/fossil-management

Rule two - Caretaker, Not Owner

A person who finds a fossil becomes a caretaker of a collected fossil, not the owner.

Does this mean that you can sell a fossil you have found? No, you cannot sell a fossil because it does not belong to you in your caretaker role. The Province is the custodian of fossil resources.

Rule 3 - Caretaker Responsibilities

Rule three is that you have the following responsibilities as a fossil caretaker.

Researching the area you plan to access – Check before you dig!

Recreational collectors also need to research the area they plan to access. There may be Crown land authorizations for resource extraction that are incompatible with fossil collecting or could create unsafe conditions. Before going on private land, you must ask the landowner for permission to access their land and collect fossils.

You may use [iMap](#) or [EXPLORE](#) mapping tools to research your area of interest.

Documenting fossil site information – Location, location, location!

Fossils lose their scientific value if you do not document where the fossil was collected. For example, you collect a rock that contains shell fossils. Then you take it home and notice it also contains a fossil bone. By not recording location information and details while fossil collecting, the specimen is essentially lost to science.

Geological context of the fossil site location is as important as the fossil itself.

Document the following information in a notebook at a fossil site before collecting:

- Record the geographic position of the site (latitude and longitude coordinates) using Global Positioning System (GPS). Do not rely solely on an electronic gadget to record, also write this in your notebook and on the label.
- Make a sketch of the area or note the location on a map.
- Record details of the location such as metres above a river or trailhead, indicating specific cardinal direction (north, east, south, west).
- Document details about the geology of the fossil site such as metres above the base of a geological section or relationship of the fossil layer to a prominent layer such as a coal seam or thick sandstone.

- Describe the rock type you are collecting (sandstone, mudstone, limestone)
- Note if fossils are in place within the layer, or within loose rock piles called talus
- Take photos of the site and the specimens in place

Reporting new fossil discoveries

The Fossil Management Office is interested in learning about all new fossil discoveries, whether they are potentially common shell fossils such as ammonites and trilobites or significant finds such as dinosaur bones, footprints and trackways.

If recreational collectors discover significant fossils, such as vertebrate remains, unusual or rare invertebrate or plant fossils, an important new site, or only small quantities of fossils present at a site, they must report this to the Fossil Management Office. Use the Report a Fossil form located at www.gov.bc.ca/fossil-management

If recreational collectors do not know what is common or significant, they are encouraged to join a local paleontology society.

Labeling and packing the fossils with care

Each fossil collected needs to have a collection or field number assigned and information written on a label that corresponds to the information in your notebook.

Label each specimen with a unique collection/field number, ideally on the rock matrix around the fossil, and include a label with details along with the wrapped specimen.

A collection number could be your initials or abbreviated site name, with the year, and sample number. For example, RS-2022-01, collected by Ms. Rock Star in 2022, specimen 01.

Details for the data label include:

- Location name (be specific and avoid colloquial/slang names),
- GPS coordinates (preferably in decimal degrees),
- Geological unit (Group, Formation, Member) if known,
- Specimen's collection number,
- Date and collector's name,
- Fossil name (common and/or scientific)

Archival quality ink is highly recommended to avoid loss of written information, but waterproof markers or pencil (not pen which will fade) can be used for labelling.

Photograph each labelled specimen as a record before you pack them up.

Below is a sample label showing the information to include. Copies of the label are at the end of this document for you to scale and print as needed.

Specimen Number:
Site/Location:
GPS coordinates:
Geology:
Common name:
Scientific name:
Collector name:
Collection date:
Comments:

Some tips for packing the fossils:

- Add protective packing of common fossils (e.g., bubble wrap, newspaper, paper towel)
- Bring tape for securing wrap
- Have sample bags or rigid plastic containers for transport
- Include the paper label if you could not label directly on the fossil

Where to Collect – Authority for access to Crown Land

Determine if you can access a particular area: is it private land, within a park, within a reserve, within a mineral claim or if resource extraction or other uses have been authorized. Ensure that appropriate permission has been obtained.

Accessing Crown land to collect fossils from the surface for recreational purposes, using hand tools, is permitted under the *Land Act* Permission Policy.

Authorization to access private land must be received from the landowner.

No fossil collecting in a park or a reserve.

Please ensure there are no Crown land authorizations for resource extraction or other activities incompatible with fossil collecting.

Ensure you carry a copy of the *Land Act* Permission Policy into the field.

Ethical Collection: When and How to Report a Significant Fossil

By reporting fossil finds to Heritage Branch, you are contributing to B.C.'s collective knowledge about paleontology.

The Fossil Management Office has a [Report a Fossil](#) form. It is important to include location information.

If you make a find that fits criteria for significant fossils, leave the fossil *in situ* (in place) and report it to the Fossil Management Office.

It is important that the fossil remain in its geological context.

If there is a threat to the fossil, such as from cliff erosion, you may need to collect it, but make sure you document the location and take photos before removing it.

Collecting Responsibly and Safely

Consider the importance for collectors to collect responsibly and safely. Paleontology is not just about digging up fossils.

Minimize damage to outcrop please. Respect the land and natural heritage – do not disturb wildlife, damage plants or contribute to erosion.

Keep groups small, with everyone using hand tools only.

Take appropriate safety measures such as:

- ✓ Maintain safety at heights; know the terrain you are going into
- ✓ Take care while hiking to be mindful of slips, trips, falls
- ✓ Wear safety goggles and gloves
- ✓ Have a first aid kit with your group
- ✓ Do not hammer outcrop above your head or walk the outcrop above others

Local Paleontology Societies

If you are enthusiastic about learning more about B.C. fossils, you can join the membership of a local paleontology society.

Volunteer organizations bring professional and recreational (amateur) paleontologists together. The British Columbia Paleontological Alliance (BCPA) is an umbrella organization of regional paleontology societies. The BCPA promotes communication among societies, sponsors a symposium every two years, produces a newsletter, and fosters public knowledge about paleontology. Check the [BCPA website \(www.bcfossils.ca\)](http://www.bcfossils.ca) for information about a paleontology society in your area.

SAMPLE FOSSIL LABEL

Specimen Number:	Site/Location:
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GPS coordinates:	
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Geology:	
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Common name:	
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Scientific name:	
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Collector name:	
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Collection date:	
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