

## How Can I Learn More?

We hope that you will enjoy the opportunities to collect and learn about fossils on your public lands. If you have any questions or wish to apply for a special collecting permit, please contact any of the following BLM offices.

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| <b>ALASKA</b><br>222 West 7th Avenue, #13<br>Anchorage, AK 99513-7599<br>(907) 271-5960         | <b>MONTANA</b><br>5001 Southgate Drive<br>Billings, MT 59101<br>(406) 896-5004             |
| <b>ARIZONA</b><br>1 North Central Avenue<br>Phoenix, AZ 85004<br>(602) 417-9300                 | <b>NEVADA</b><br>1340 Financial Boulevard<br>Reno, NV 89502<br>(775) 861-6500              |
| <b>CALIFORNIA</b><br>2800 Cottage Way<br>Suite W-1834<br>Sacramento, CA 95825<br>(916) 978-4400 | <b>NEW MEXICO</b><br>1474 Rodeo Road<br>Santa Fe, NM 87505<br>(505) 438-7471               |
| <b>COLORADO</b><br>2850 Youngfield Street<br>Lakewood, CO 80215-7076<br>(303) 239-3600          | <b>OREGON</b><br>333 SW 1st Avenue<br>Portland, OR 97204<br>(503) 808-6001                 |
| <b>EASTERN STATES</b><br>7450 Boston Boulevard<br>Springfield, VA 22153<br>(703) 440-1600       | <b>UTAH</b><br>440 West 200 South, Suite 500<br>Salt Lake City, UT 84101<br>(801) 539-4001 |
| <b>IDAHO</b><br>1387 South Vinnell Way<br>Boise, ID 83709<br>(208) 373-3889                     | <b>WYOMING</b><br>5353 Yellowstone Road<br>Cheyenne, WY 82003<br>(307) 775-6256            |

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# Fossils on America's Public Lands



BLM

## Fossils

*Tyrannosaurus. Allosaurus. Triceratops.* The mere words send the imagination soaring. Children and adults alike are fascinated by the deep past and fossils of all kinds. We hope that this guide will help you understand more about the importance of fossils and also appreciate the public lands that preserve these remnants of past ages.

### What Are Fossils?

Fossils are the remains or traces of any organism preserved in the Earth's crust, and paleontology is the study of fossils.

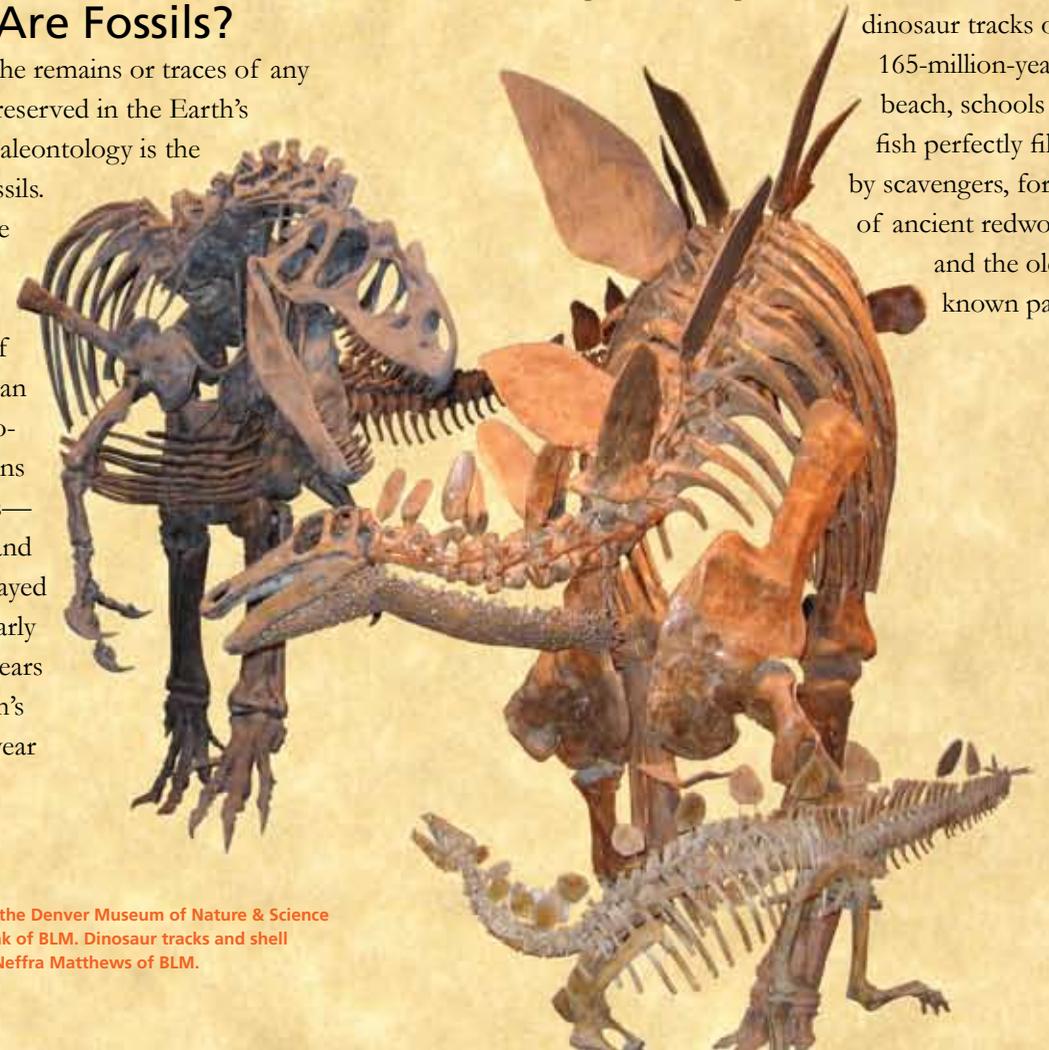
Through the careful collection and study of fossils, we can learn the stories of origins and endings—life, death, and change—played out over nearly 3.5 billion years of the Earth's 4.5-billion-year history.

Photos taken at the Denver Museum of Nature & Science by Janine Koselak of BLM. Dinosaur tracks and shell background by Neffra Matthews of BLM.

### Where Are Fossils Found?

Americans share an extraordinary natural legacy—the public lands. The Bureau of Land Management (BLM) manages more than 261 million acres of public lands in the Western United States, lands where *Allosaurus*, *Stegosaurus*, *Deinonychus*, and *Pentaceratops* once roamed. Well-preserved dinosaur fossils are often found in the steep, arid, and deeply eroded terrain in the West. Other fossils, though perhaps less stimulating to the imagination than dinosaur skeletons, are also preserved on our public lands: perfect leaves and flowers,

dinosaur tracks on a 165-million-year-old beach, schools of fish perfectly filleted by scavengers, forests of ancient redwoods, and the oldest known parrots.



## Why Is Studying Fossils Important?

Scientists get clues from fossils left by everything from the tiniest bacteria to some of the largest creatures ever to roam the Earth, swim in its seas, or soar in its skies. These clues help us solve the fascinating riddles of how life on Earth evolved. Fossils illustrate how all forms of life are interdependent and affected by their environment. Fossils or fossil fragments make up the bulk of some rock types such as coal, phosphate, and limestone. They also serve as indicators of other commodities, such as oil and gas, which are important in our economy and everyday lives. In addition, fossils are simply fun to study because of their natural beauty and the excitement, wonder, and understanding they evoke about life in ancient worlds lost in time, worlds that we can only imagine.

## May I Collect Fossils?

You may collect a variety of invertebrate and plant fossils on BLM public lands, with certain restrictions. Some areas might have special designations that restrict access and the types of activities allowed. It is always a good idea to stop by the nearest BLM office to check on conditions such as land status, fire danger, or road

closures. On private land, fossils may be collected only with the permission of the landowner.

### Invertebrates:

No permit is required to collect reasonable quantities of invertebrate fossils such as:

- Trilobites
- Brachiopods
- Ammonites



The invertebrate fossils you collect are for your personal use and enjoyment and may not be bartered or sold. Please remember to leave some for the next collector, too.

### Petrified Wood:

You may collect:

- Up to 25 pounds of petrified wood, plus one piece, each day.
- No more than 250 pounds in any calendar year without a permit.

You may not combine your allowance with another collector's allowance to obtain larger pieces of petrified wood. As with invertebrate fossils, collections of petrified wood are for your personal use and may not be bartered or sold.

### Other Plant Fossils:

No permit is required to collect a reasonable number of plant fossils such as leaves. They are for your personal use and may not be bartered or sold.

### Vertebrates:

Vertebrate fossils may only be collected with a permit because of their relative rarity and scientific importance. They include not only bones and teeth, but also footprints, burrows, and other traces of activity. Vertebrate fossils are fragile and complex, and permit applicants must be able to show a sufficient level of training and experience in order to collect them. In addition, all vertebrate fossils collected under a permit must be held in an approved repository.

## What About Archaeological Artifacts?

Because of their extraordinary scientific importance, archaeological artifacts are stringently protected by various laws and must not be disturbed. Fossils associated with archaeological artifacts are also protected.

## What Else Can I Do?

You can be involved in and contribute to today's exciting advances in paleontology. Many museums and colleges offer opportunities for volunteers to study and work alongside trained professional paleontologists. Contact them to see how you can help.

You can also help the BLM manage and protect these unique resources by simply reporting the location of any vertebrate fossils you find to the nearest BLM office. This way, land managers can alert professional paleontologists to ensure that the bones are properly removed, studied, and preserved for everyone's benefit. Please do not attempt to remove them yourself. Important information may be lost, no matter how careful you might be. There are also serious penalties for unauthorized collection.

