

THE FOSSIL RECORD

A publication of the Northwest Museum of Natural History • July 2006

Over the Wire:

SEARCHING FOR EVIDENCE

How Old is This Fossil?

The age of fossils intrigues us all. The answer lies in geologic principles of relative and absolute ages.

The relative age method was developed during the late 18th and early 19th centuries in England, and is based on the succession of fossils in the geologic record. We have come up with about 1,000 successive time zones based on fossils, and these have allowed us to work out much Earth's geologic history in great detail.

Absolute age dating using radioactive decay in rocks became possible after 1920. For example, prior to this time, we had no idea whether the dinosaur Triceratops lived many thousands of years ago, a hundred thousand years ago, or even several million in the past. Thanks to radiometric dating, we now know that the animal actually existed between about 65 and 80 million years before our time.

Both dating methods are used widely today.

Field Trip:

THE HISTORY OF THE NORTHWEST

Canoe Island French Camp

Natural & Cultural History of the San Juan Islands

Date: September 1 to 4.

Cost: \$215 per person (member).

\$245 per person (non-member)

Call: (503) 358-9030 to register.

Relax on a private island while exploring the natural and cultural history of the Washington San Juan Islands, all with a taste of French culture and cuisine.

In addition to learning about the fascinating geological, paleontological, and archeological history of the island, try your hand at sailing, sea kayaking, swimming, and tennis. Traditional French games and

campfires round out the weekend.

The bedrock of Canoe Island is lightly metamorphosed marine sediments and volcanics. As we will discover, the Ice Age has also left its mark on this unique island.

We hope you will be able to join us for what promises to be a most informative and enjoyable Labor Day Weekend.

Transportation will be by private car to the Washington State Ferry that departs from Anacortes to Orcas Island. From there, we are shuttled by private boat to Canoe Island.

Cost includes accommodations, meals, all activities and private shuttle. For details please call (503) 358-9030.

In the Laboratory & the Field:

MUSEUM NEWS

Museum Scientists

Our work at the paleontology laboratory at OMSI is progressing well. Many of the Triceratops bones have been completed, and the exciting task of skull preparation is presently under way. Paleontology volunteer Dick Burt has recently built a sand blasting device that will be immensely valuable to abrade tough matrix (rock) away from the extremely delicate bones.

This year on the central Oregon Coast, we unearthed the remains of a primitive sea lion (about the size of a modern day small harbor seal) from 20 million year old marine rocks.

In eastern Oregon near Prineville, our Museum scientists excavated the remains of an ancient marine crocodile about 170 million years old. We anticipate that upon further study, the specimen may reveal valuable information in the crocodile family tree.

We will be studying the relationship between land dwelling crocodiles and an extinct marine group that became fully adapted to life in the sea with flippers for legs and a large vertical fin at the end of its tail.

NORTHWEST MUSUEM OF NATURAL HISTORY ASSOCIATION • PO BOX 1493 • PORTLAND OR 97207 • 503-358-9030