

# Fossils In North Dakota

FIND is a newsletter dedicated to helping young readers (in age or spirit) express their love of fossils and paleontology, and to help them learn more about the world under their feet. Each issue will be broken up into sections including Feature Fossils, Travel Destinations, Reader Art, Ask Mr. Lizard, and more!

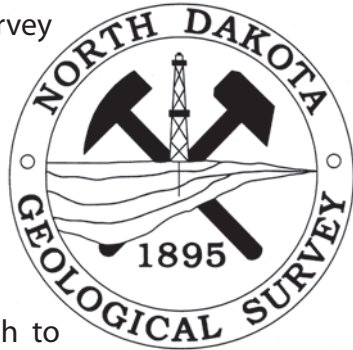
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Editor: Becky Barnes  
North Dakota Geological Survey  
600 East Boulevard  
Bismarck, ND 58505

becbarnes@nd.gov

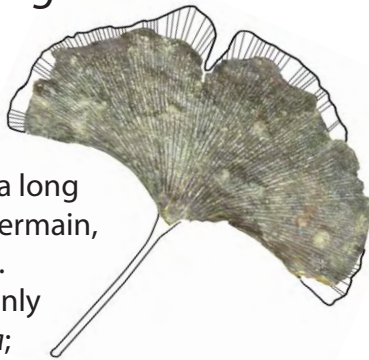
Next Issue: March 2012

Please e-mail us if you wish to receive the electronic version of FIND, or view past issues at:  
<https://www.dmr.nd.gov/ndfossil/kids/newsletterkids.asp>



## Feature Fossil:

### *Ginkgo - a Living Fossil*



The ginkgo tree has a long history which starts in the Permian, about 270 million years ago. Thought to be extinct, the only living species (*Ginkgo biloba*; Latin, *bis* = two, *loba* = lobe) was found living in Chinese monasteries and brought back into European and Western culture. Due to the similarity in leaf shape to the maidenhair fern, it is also called the "maidenhair tree." The leaves are fan-shaped, often splitting partially down the midline. They are **deciduous** plants, their leaves turning a bright gold and dropping in the fall.

Ginkgos are one of the only remaining **dioecious** trees (Greek – "two houses"), with male and female plants. Male trees are planted more often for decoration, as female trees produce a small fleshy seed similar in appearance to a small fruit. Unfortunately, the fleshy part tends to smell like rancid butter when they fall from the tree. The seed inside is edible however, tasting similar to a pine nut or chestnut when grilled or boiled.

The ginkgo does not like shaded areas, and will grow in height rapidly before branching to the side. Adult trees can reach 35 meters in height, but there are ancient trees in China that have reached 50 meters in height. They are long-lived, some maybe 2,500 years old. There are no living close relatives to the ginkgo, but they may have an ancestor related to cycads or seed-ferns.

## Travel Destination: Long X Trading Post visitor Center

With all the news surrounding the oil boom in western North Dakota, people are traveling from all across the country to be part of the liquid gold rush. While you are there, make sure to check out the Long X Trading Post Visitor Center (which also houses the Pioneer Museum of McKenzie County), located at 100 Second Avenue SW, in Watford City, ND. From a 60 million-year-old Bald Cypress tree stump, to local murder mysteries and ranching history, the museum and visitor center contains information on the surrounding geology and history, as well as a display about oil development in the area. The visitor center name comes from the Long X Ranch, which was the local destination of cattle drives from Texas.

The North Unit of Theodore Roosevelt National Park is near Watford City, so it makes for a convenient stop on your way to beautiful Badlands scenery and wildlife.

Phone: 701-444-5804

Summer Hours (Memorial Day-Labor Day):

Monday-Saturday 9am-9pm  
Sunday 1-5pm

Winter Hours (September-May):

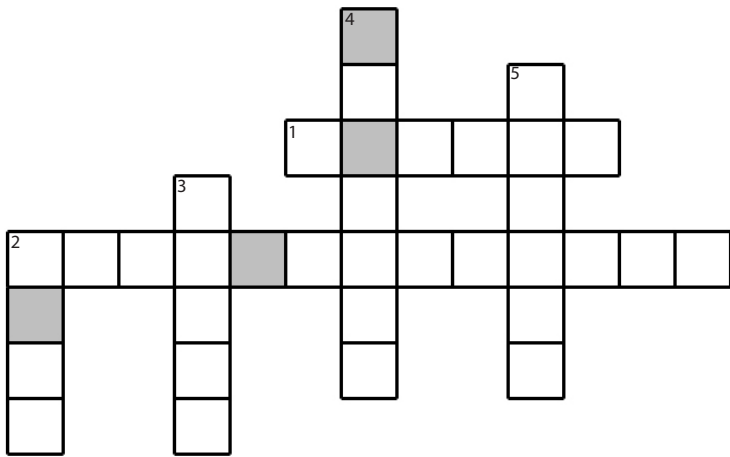
Monday-Saturday 9am-9pm

## Reader Art

We want YOUR artwork! Please e-mail us a digital copy, or mail your traditional art (that you don't want returned) to our address in Bismarck, ND.

# Paleo-Puzzle

Answers Included In The Next Issue



### Across:

1 - The remains of a prehistoric organism preserved in petrified form or as a mold or cast in rock.

2 - Name of the tyrant-lizard king.

### Down:

2 - A portable shelter made of cloth for use when camping.

3 - Hot material below Earth's crust which forms lava or rock when brought to the surface.

4 - The study of living organisms.

5 - A state of matter which tends to flow; solid \_\_\_ gas.

Unscramble the letters in the gray squares to see what an extra Paleo-Puzzle surprise is!

A -us!

## Just Imagine...

Thunder rolled in the distance, the sky a mass of gray clouds. Lightning flickered, sending flashes of color arcing through the sky. Rain began to patter down on the thirsty ground below. A large herd of *Edmontosaurus* (duck-billed dinosaur) wandered through a forest of *Ginkgo* and *Metasequoia* trees, picking their footing carefully along the parched earth. It had been unusually dry the past season, and the herd had lost many of its younger and older members to the drought already.

Wind whipped among the tree branches. An explosion of fire and wood shot through the trees as lightning shattered a *Ginkgo*. The herd of *Edmontosaurus* panicked, the animals stumbling and bellowing through now pouring rain, blinded to the nearby streambed. Torrential washes of mud and water coursed down the once-dry gully, pulling branches and unwary animals to an unknown fate.

The sky calmed once more, and sunlight streamed through the dripping leaves, cascading rainbows sparkling through the air. The old mother *Ginkgo* lay on the ground nearby, surrounded by dozens of her seedlings. Not all would grow to a vast height, but they each had a chance now that the sun could reach them through the canopy.

## Special Interest:

### Bald Cypress Tree Fossil in Watford City

Housed within the Long X Trading Post is a massive fossilized Bald Cypress tree stump, measuring 9' wide and 8' tall. It was discovered in McKenzie County, about 30 miles southeast of Watford City. The U.S. Forest Service and ND Geological Survey paleontologists were excavating crocodile remains in what was a huge swamp 60 million years ago. Amidst the bones was the large tree stump. It was still in growth-position with its roots **carbonized** (turned to coal), but the trunk was **petrified** (replaced with rock, such as silica).

The tree was carefully shrink-wrapped and lifted from the site onto a waiting end-dump gravel truck by a large crane. The inside was hollow, but the remaining tree still weighed an amazing 16,000 pounds! An even larger crane was needed to lift the tree stump from the gravel truck, up through the Long X Trading Center's roof.

To read more information on the dig, people, and agencies involved in moving the tree, you can read an article by John Hoganson at:

<https://www.dmr.nd.gov/ndfossil/exhibits/pdf/stump.pdf>

