

OZARK ADVENTURE

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Missouri's Dinosaur Bollinger County, Missouri

by Bob McEowen, Field Editor of Rural Missouri Publication

In 1942 Dan Stewart, a geologist with the Missouri Geological Survey, wandered through the hills near Glenallen, Missouri. Here he met young Ollie Cronister who told him about some unusual bones his family had found while digging a cistern ('sis-tern). Mr. Stewart borrowed a few bones from the Cronister family and sent them to the Smithsonian Institute in Washington, DC, for identification. They were first proclaimed to be a new creature, but later determined to be a duckbilled hadrosaur. The *Journal of Paleontology* (pa-le-än-'täl-e-je) story that followed eventually caught the attention



Guy Darrough carefully examines the dig site for fossils.

of Bruce Stinchcomb, a geology professor at St. Louis Community College, Florissant, Missouri. In 1987 he began digging in and around the Cronister's well in search of more fossils. According to Mr. Stinchcomb, "It's the only known dinosaur site anywhere in this part of the country. The nearest occurrence of dinosaurs is about 1,000 miles away."

The Cronister site, located in rural Bollinger County (southeast Missouri) was purchased by Mr. Stinchcomb and, in 1999; the Missouri Dinosaur Project began in earnest. So far, the careful examination of the dig has yielded bones from at least three different dinosaurs at the site. Teams of volunteers have added 21 vertebrae



The crinoid (from Guy Darrough's collection) is the Missouri state fossil.

... MISSOURI'S DINOSAUR continued on page 3

How To Build A Cave

How would you go about *making* your own cave? A group of students at Nevada's (Missouri) Storefront School recently took on that task. After a six-week unit of study on bats, spiders and caves, they began to put it all together. Research, creating models and writing projects were all mixed into the study. They even built their own cave environment including stalactites, stalagmites, columns, sinkholes and animals. A trip to Fantastic Caverns helped them gain background on caves for their project.

Since caves are naturally dark, a basement room at the school was covered with black plastic. Cave formations and features were fashioned from cardboard covered with paper. Cave animals were made from paper and clay. There was even a stuffed bear that snored and moved in his sleep!



Cody L. and Kristin at the entrance of the cave.

Based on their research, the students placed animals in one of the three cave zones. The outside door was decorated with rocks, vines and leaves. There was even a tape playing that had dripping water and animal sounds on it.

During the open house, students took their parents and grandparents on a tour. They told about the cave's features and shared their knowledge about Missouri's caves. The "Homemade Cave" and the student's understanding of caves made a wonderful impression on all that attended. What a neat way to learn!

Treasure Seekers

When we think of treasure, what comes to mind is visions of diamonds and gold. Missouri and the Ozarks are rich in geological and mineral resources and, for the all new **2002 Summer Discovery**, visiting students will ply their skills on a mineral sluice in search of those riches. Groups attending this specialty tour will be panning for Missouri and regional mineral samples, then working to identify their discoveries. Instead of diamonds and gold, they'll find minerals common to the Ozark region.



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to the 13 duckbill backbones originally found in 1942. They've also discovered a tooth from a velociraptor and another from some sort of tyrannosaur. Additionally, the dig has turned up pieces and parts of prehistoric turtles and crocodiles. What they have not found is a skull to help identify exactly what they have or, for that matter, a complete skeleton like those that make national headlines.

Despite the lack of a complete skeleton, Missouri's dinosaur is big news to paleontologists because it expands the range of the centuries



Paleontologist Guy Darrough and his crew of volunteers remove clay deposits from the Missouri dinosaur excavation site near Glenallen.

back to a time when ocean waves lapped against the shore only 20 miles from the Cronister

location. It's also big news for the surrounding communities that embrace Missouri's Dinosaur as their own.



Guy Darrough displays dinosaur bones found at the site near Glenallen. The bones belonged to a duckbilled dinosaur called hypsibema.

Editor's note: Story content and photography contributed by Bob McEowen, Field Editor for Rural Missouri, (a publication of Missouri's Rural Electric Cooperatives), Jefferson City, MO

ON-LINE CAVING

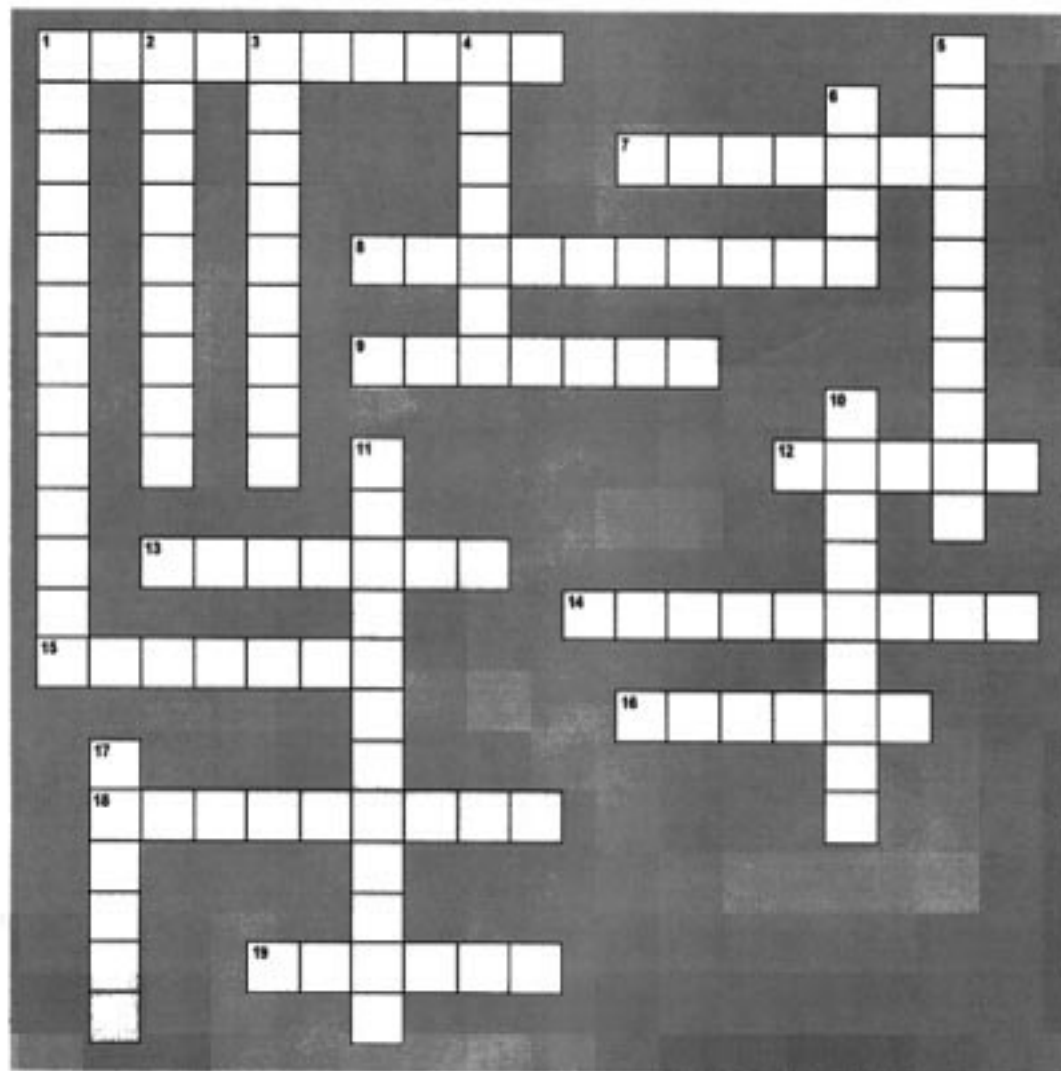
Many cave resources may be now accessed via the Internet. The Fantastic Caverns site (www.fantasticcaverns.com) provides photography of the caverns and the animals that live there, cave research materials, the current and past issue of Ozark Adventure, and links to other cave related sites. Another interesting site is the American Cave

Museum (www.cavern.org). This site features studies and activities about caves, karst, cave life and groundwater. While the museum is located in Horse Cave, Kentucky, the Internet brings it right into your classroom. One web address that is a path to many other cave and karst websites is the National Caves Association site at www.caverns.com.

Keep Us Posted

If your class or school has a science project that involves caves or springs, please tell us about it. You never know, we may feature your work in an upcoming issue of Ozark Adventure. You can reach us at: Fantastic Caverns Science Research Program, 4872 N. Farm Road 125, Springfield, MO 65803.

SPRING 2002 ADVENTURE PUZZLE



ACROSS CLUES

1. Visiting a cave is a neat _____.
7. _____ nourish their young with milk.
8. Cave _____ are very pretty.
9. We can learn about _____ from caves.
12. Bats need clean _____ to live.
13. Fantastic Caverns _____ Research Program.
14. The _____ Tour.
15. Don't dump your _____ by the road.
16. Bats are _____ mammals.
18. These are clues to man's past.
19. Ancient _____ used caves for shelter.

DOWN CLUES

1. Controlled testing.
2. _____ poisons ground water.
3. Protect our natural _____.
4. Missouri has more than 5,600 caves and _____.
5. _____ are used to kill bugs.
6. _____ seek their food at night.
10. Cave _____ tell ancient stories.
11. _____ is wise use of resources.
17. Respect _____!

WORD LIST:

**SPRING 2002
ADVENTURE PUZZLE**

ADVENTURE	HISTORY
ARTIFACTS	MAMMALS
BATS	NATURE
CAVERNS	PAINTINGS
CONSERVATION	PEOPLE
EXPERIENCE	PESTICIDES
EXPERIMENTING	POLLUTION
FLYING	RESOURCES
FORMATIONS	SCIENCE
GARBAGE	WATER