

# Utah Friends of Paleontology

## Castle Valley "Raptor" Chapter Newsletter

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### NOVEMBER UFOP CHAPTER MEETING

Our November meeting will be on Tuesday, November 10 at the CEU Museum classroom at 7:00 p.m.

Many of you know our speaker, Shawn Duffy, who has been working in southern Utah and has been doing some interesting work related to the Permian period. Shawn has a number of slides he will show in connection with his talk which will be about the fossils and footprints of the Permian..

We hope to see all of you there !!!

### CEU MUSEUM VOLUNTEERS AND YOU (FOP)

Enclosed with this newsletter is a note from Sue Ann Martell of the museum. The museum would like very much for UFOP members to be involved in their volunteer program. Sue Ann will share more about this at our meeting on the 10<sup>th</sup>.

### UTAH DINOSAURS ARE IN THE NEWS AGAIN

The following article appeared in October in the San Francisco Chronicle. Do we realize what a goldmine of fossils we have right in our own back yard?

### Utah Fossils Reveal Clues To 'Twilight Zone' of Dinosaurs

*Associated Press*  
Washington

Filling in part of an 80 million - year historical gap, fossils found in Utah suggest that long-necked dinosaurs may have eaten themselves into oblivion by helping destroy North American forests. That allowed the rise of shorter, horned dinosaurs that fed on shrubs.

Researchers also uncovered fossils suggesting that a toothy dinosaur migrated from Asia and evolved in the Americas into Tyrannosaurus rex, the most fearsome

meat eater in history, said Richard L. Cifelli, lead author of a study in the Proceedings of the National Academy of Sciences that will be published today.

Fossils unearthed in Emery County, Utah, are the first for terrestrial animals and plants from a historical gap that began 145 million years ago and continued until just a few million years before the dinosaurs became extinct 65 million years ago, Cifelli said.

"This gap has been like a twilight zone in the age of dinosaurs," said Cifelli. Although it was clear that great changes occurred during that gap, little was known because there were few fossils. "This is the first lighted room in a darkened house," he said.

Louis C. Jacobs, a noted dinosaur expert at Southern Methodist University, said the Utah fossil discoveries are "hugely" important because they help give a picture of the world during an unknown period.

"There were very major changes then in the ecosystems of the Earth," he said. "What they have done is to document a portion of that change for the first time and put a date on it."

Cifelli said the Utah dig uncovered more than 6,000 fossils representing about 80 different types of animals. A layer of volcanic ash found just above the fossils has been dated to about 98 million years old, Cifelli and colleagues from the University of California at Berkeley, and Brigham Young University

report in today's research paper - putting the highly diverse find squarely in the middle of the Cretaceous gap.

What emerges is a surprising picture, he said.

"The early dinosaurs in North America were dominated by the long-necks, the sauropods," said Cifelli. They were so common 145 million years ago, he said, "it was like it had rained sauropods over the American West."

He said the huge appetite of the sauropods had a major effect on the continent and its forests of primitive plants.

"The sauropods were so big they could go through and clear up an area," he said. "After these mowing machines went by, the flowering plants would take over the land. They are fast-growing and rapid colonizers."

But the early flowering plants grew low to the ground as shrubs and bushes. With the change in plants, said Cifelli, "the dinosaurs responded by developing new types of low level feeders."

The long-necked sauropods virtually disappeared from the fossil record, to be replaced by a weird collection of squat grazers. Some had duckbill-shaped skulls. Others had long horns and armored plates, while others had spikes of bone running down the spine.

"There was one dinosaur with a head like a bowling ball," said Cifelli "And there was one with a tail club" a tail tipped with heavy bone probably used to bash its enemies.

The ancestor of Tyrannosaurus rex was found among the fossils, but there was little to suggest its evolutionary future.

Cifelli said that over millions of years, the meat eaters and the plant eaters engaged in an evolutionary "arms race," growing bigger, bonier and adding teeth. That concluded, just before the end, with Tyrannosaurus rex as "the biggest and the baddest" carnivore in the Americas, he said.

Nearly all of the dinosaurs in the new Utah find, said Cifelli, were either first seen in Asia or are descendants of dinosaurs that first arose in Asia, Cifelli said.

"People had suggested that these animals came over from Asia, but it has never been documented before when that might have happened," he said. "Now it is clear that most had come over by about 100 million years ago."

## Dave Gillette Heads for Arizona

Utah State paleontologist, Dave Gillette has left to assume his new position in Arizona. We enjoyed having Dave share his thoughts with us at our last meeting, and wish him all the best in his new position.

Clark Warren reports that the search committee that is working on a replacement for Dave is continuing to narrow down their list and hope to have a person selected in the near future.

We only hope that his replacement will be as committed to the idea of a state volunteer organization to promote and work with our paleontological resources as Dave has been.

## Utah Friends of Paleontology



"My goodness, Harold! ... Now there goes one big mosquito!"

(And you thought the gnats at the PR2 site were bad !)



Sixty-five million years ago, when cows ruled the earth

(Maybe this explains those unidentified bones from the PR2 site)

Everyone have an enjoyable Thanksgiving holiday! We are looking forward to seeing you on the 10<sup>th</sup>. Also, — don't forget our Christmas social which will be held during our regular meeting time in December.

UTAH FRIENDS OF PALEONTOLOGY "RAPTOR" CHAPTER  
MEETING - OCTOBER 13, 1998

The meeting was called to order by Byron Ray.

Byron introduced five student's from Michelle Fleck's Biology class and explained to them about UFOP and some of the levels of achievement required on our chart. He passed pictures of the Gastonia Burgie and commented about the SVP Conference. Denver, Colorado will host the Society of Vertebrate Paleontologists Conference next year.

The Treasurer's Report was made by Roger Krowe.

Beginning Balance:	1295.82
Total Deposits	+830.69
Sub Total	<u>2126.51</u>
Total Checks Written	-845.00
New Balance	<u>1281.51</u>

Byron turned the meeting over to Clark Warren so that he could introduce Dave Gillette, who was our speaker for the evening. Dave, who at this writing is our State Paleontologist, will be leaving shortly to accept a new position at Flagstaff, AZ. He has been a good friend and we shall miss him.

Dave complimented us on our museum. He referred to it as becoming "a shining star" and that we can expect many visits from other paleontologists. Dave said our next State Paleontologist will probably be more dino oriented, Dave's interest is more invertebrate than vertebrate. He also said we need to recruit younger people in the 20 to 30 age groups or 30 to 40 age group, so that as we grow older and leave there will be others to take our place and assure UFOP of a continuous future. We need to get other people in other parts of the state such as Moab, Ogden, and St. George, to become interested in UFOP and Paleo thru community involvement, and we need to retain our specimens here.

Dave spoke of the Western Association of Vertebrate Paleontology (WAVP) 22nd Annual Meeting coming up next February 13-14, 1999 in Fresno, California.

There will be a reception on Friday evening, 2/12/99 from 6:30pm to 10:00pm; a dinner to honor Dr. Art Stabler on Saturday, 2/13/99; Papers Sunday, 2/14/99 and a field trip Monday, President's Day, 2/15/99. It will be Mammals in the morning and reptiles, amphibians, fish, and birds (including dinosaurs) in the afternoon.

Our meeting concluded with refreshments provided by Roger Krowe. Thank you, Roger!

For information regarding WAVP:

You can contact: WAVP 99  
c/o Frank Sweeney  
PO Box 298

# Volunteers Wanted!!!

The CEU Prehistoric Museum is looking for people to volunteer in the following areas:

❖ Lab Assistant

