During one of our field sessions in the summer of 2005, I stumbled upon a broken up pile of bone chunks on a hillside. A little digging revealed a leg bone beneath the surface. Another leg bone was found lying on top of this one and we decided to put a little more effort into the site. This last summer we did complete the collecting phase. It turned out to be a partial hadrosaur skeleton lying in an old sand bar. The first week we dug at the site, there was a dead ewe at the bottom of the hill. Her ear tag was number 148. So the site became known as “Dead Sheep 148.” The rancher had to hand-raise her twin lambs. A string of articulated vertebrae was seen as well as two ribs still in life position running from the vertebrae. In front of the verts was a femur; in front of Steve (lower left photo) are many of the pelvis bones, which at this point had not been fully exposed yet.

The somewhat articulated bones from the vertebrae to the pelvis were tightly packed. We could not separate them in the field, so we collected a very large jacket containing that part of the animal. We estimate this jacket weighs about a ton (top photo).

As for the tail... where the tree is below the bones, there were many ossified tendons, as well as the fused sacral vertebrae. Sacral vertebrae are the vertebrae that are part of the pelvis. In life the tendons would have been lined up along the back of the backbones in the pelvis and tail. The fact that many of these tendons were still lying in a somewhat articulated position, and that there were no vertebrae found beyond the sacrum suggests that the tail was washed away, while leaving the underlying tendons.

In the lab, while we near completion of mammoth bone prep, we have started working on Dead Sheep 148. It will also be a long project; and getting the one-ton jacket into the lab will be reason for brainstorming.

We thank Lee and Vicki Brown for allowing us to collect on their ranch, as well as all of the field diggers who spent time at this site.
Director's Note

Well, I have always said, “… if we can just make it through February, then spring will be on the horizon and we can say goodbye to another winter.”

Now that I look at my spring and summer schedule, I am amazed at all of the projects and events that will soon be upon us. There are a lot of exciting activities planned for this year.

Our first major event was the March 15 Rendezvous with the Tate fundraiser. This event was as good if not better than last year. We had some wonderful auction items by various local artists. Mike Kopriva also created a new painting that matched this year’s theme. Along with the artwork, there are several spectacular fossils and mineral specimens. The grand prize was a meal for 10 by Nimi McConigley. To top off the event, Pete Martinez provided music and entertainment. We will not hold this event again next year, as we will be gearing up for our 30th anniversary in 2010.

Other events coming up are the June Conference titled “Eocene Epic – Life, Death and Conquest of the Early Tertiary.” This conference includes a day of renowned speakers from across the country followed by a two-day field trip to the southwestern part of the state. Throughout the summer, JP and I, along with other members of the Tate crew, will hold summer dig classes. These weeklong classes will be out in the field where participants can work in a real dinosaur quarry. This year we will focus our efforts on the Lance Formation. And don’t forget the Saturday Club for young scientists. This club is offered the first Saturday of every month.

The Tate Museum will also participate in the Museum Passport project. As in the past, passports will be given away and are good for most of the museums in the Casper area. As you visit a museum, you can have your passport stamped. At the end of the summer, you can turn in your completed passport for prizes. It is a lot of fun and a great way to see what Casper has to offer. I look forward to these events and hope to see you there. Additional information and registration forms can be found on our website: www.caspercollege.edu/tate.

Melissa Connelly
Interim Director
Tate Geological Museum – Casper College
307-268-3068

Field trip to the southwestern part of the state.

Opening Keynote Speaker: Kirk Johnson
Denver Museum of Nature and Science

Closing Keynote Speaker: Arvid Aase
Fossil Battle National Monument

Friday - June 6th:
Talk schedule to be announced.

Saturday & Sunday - June 7th & 8th:
Extended field trip to visit Eocene areas in southwestern Wyoming. Departure and arrival times to be announced.

Registration and medical release forms can also be accessed from our website, www.caspercollege.edu/tate.

We hope to see you in June!

14th Annual Symposium in Paleontology and Geology – June 6-8, 2008
“The Eocene Epic”

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Dinosaurs of Wyoming 2008 Field Expeditions with the Tate Geological Museum at Casper College June 16-21, July 28-Aug. 1, or Aug. 11-15

Join the Tate crew in the Lance Formation this summer. This year we will be working two dinosaur quarries as well as other paleontological sites near Lusk, Wyo. Our main focus is a Triceratops, the Wyoming State Dinosaur. Learn about the Late Cretaceous by digging through the pages of history. Like a forensic scientist, you will piece together the events around the deposition of this 65-million-year-old fossil. Participants will learn various field techniques including mapping, excavation, geology, and preparation. Evening lectures will cover paleontology, taphonomy, paleoecology, and geology of the site. Fees include hotel accommodations Sunday night through Friday night, meals and in-field transportation. Student will need to cover other expenses including transportation to and from Casper. Cost is $650 plus tuition. Please fill out the nondegree seeking student registration form found at this website: (http://nw4.caspercollege.edu/common_content/pdf/nondegree.pdf) and mail a check or credit card information to:
Melissa Connelly, Tate Museum, Casper College, 125 College Dr., Casper, WY 82601.
For more information please call 307-268-3068 or mconnelly@caspercollege.edu. After receiving your registration, additional information will be requested. Tuition rates are:
$69.50 - Wyoming residents
$100.50 - WUE residents (AL, WA, ID, MT, ND, SD, NE, CO, AZ, NM, UT, CA, NV, OR)
$193.50 - Nonwestern states residents

Q:
Russell, How far back do brightly colored reef fish – angelfish for example, or clownfish – go in the fossil record?
– Bridgette Conley
Mills, Wyoming

A:
It is, of course, impossible to tell the color of a fossil fish. But we can make some guesses based on body shape. Many modern tropical reef-dwelling fish have laterally flattened bodies that are deep from top to bottom. The narrow shape allows them to slip into crevices in the reef when danger threatens, while the flat sides provide a large display area for distinctive color patterns. These color patterns help the fish recognize members of their own species in the diverse, crowded tropical reef community.

At the dawn of the dinosaur age there were not yet any angelfish, but there was a group of more primitive fish called pterasomids. These had the same deep, narrow body shape as a modern acanthurid (surgeonfish) and thus would probably have also been brightly colored. They died out during the extinction event at the end of the Triassic period, but they were survived by another group of fish called semionotoids, which produced a number of deep-bodied, probably reef-dwelling species in the Jurassic. In the Cretaceous period a third group of deep-bodied fish, the pycnodonts, took over the reef-dwelling niche. By the Eocene the semionotoids were extinct and the pycnodonts were on the way out. But it was also in the Eocene that the modern groups of tropical marine fish evolved, including pomacanthids (angelfish), pomacentrids (damsel fish), scarids (parrotfish), ephippids (spadefish) and labrids (wrasse). The clownfish (Amphiprion) belongs to the damselfish group; it has no fossil record.

– Russell J. Hawley