

A CROSS SECTION IN TIME: PALEOZOIC, MESOZOIC, AND CENOZOIC TEXAS FOSSIL FINDS

October 10, 2004

Progress at a local construction site in the Lower Glen Rose formation is moving along at a good clip these days, so I figured I better give the place another look. I'm glad I did, since 30 minutes of effort turned up 6 pristine *Salenia texana* echinoids along with one less common *Tetragramma texanum*. I figured I better "git 'em while the gittin's good."



FIGURE 1: Lower Glen Rose fm echinoids *Tetragramma texanum* surrounded by *Salenia texana*

October 15, 2004

Since I won't be able to hunt fossils until early November, I doubled up this weekend and held a one man, all out fossil marathon spanning the ages. I was able to peruse Pennsylvanian, Cretaceous, and Pleistocene localities by forsaking sleep and burning some diesel. I kicked things off by dropping my kayak in a river on Friday and running upstream of where I broke a shear pin and called it quits on the previous trip. This turned out to be a fortuitous choice of sites as I experienced the best Pleistocene skullduggery this side of the La Brea Tar Pits.

With fog hanging over the water, I beached at the upstream point of the first large gravel bar. I found the water's edge as well as the higher, hard packed sections of gravel to be littered with heavily mineralized vertebrate material. I quickly found a section of alligator upper jaw with 3 empty tooth sockets, a spectacular horse tooth, a possible horse incisor, turtle shell fragments, and a host of indeterminate tumbled pieces.



FIGURES 2-5: Alligator and Mammoth skull fragments upper left, *Equus* horse teeth upper right, turtle shell fragments lower left and lower right



FIGURES 6 and 7: Horse incisor left, various leg bone ends right

I passed a small bar in the rapids and made note to canvass it upon my return as navigating it downstream would be much easier. A very high bank of mud, sand, gravel, and sandstone concretions was around the next bend, and when I reached it I found another dedicated fossil collector in his motorized canoe scanning the bank. He said he was impressed to see another collector out there. I told him I was a novice as this was only my third time at the river, and he generously gave me some “pearls of wisdom” gleaned from collecting the immediate area over the past 10 years.

This same high bank apparently has given him a perfect mammoth molar and a half a mammoth pelvis among other things. He has sections of mammoth tusk as well, and found a tapir jaw at a high bank farther downstream. By getting on the river early, I had unwittingly collected two of the best bars on that stretch of river as they accumulated bones from this particular bank which is rich in fauna. This didn't impact his plans however since he prefers to hunt the banks for more scarce, but less tumbled, specimens.

I hit another 4 or 5 gravel bars upstream, collecting everything from turtle shell fragments to more horse teeth to large mammal vertebrae in mud/gravel concretions to fragmented ball joints, all heavy and glossy red/brown in their fossilized splendor. The 10 miles back downstream went pretty quickly after some adjustments to my engine mount. Now I feel like I'm sitting on a skateboard running out of control down a big hill. Pretty fun! Yes, I wear a life jacket and kill switch.



FIGURES 8-13: Horse or tapir atlas (second cervical vertebra) top 3 photos followed by mammoth tooth enamel and rodent hip right, alligator vertebra lower left, miscellaneous fragments lower right

On the way back I ran into the same guy's brother-in-law fishing on the river. A kindly country gentleman, he scratched his phone number into my paddle and offered to let me launch from his riverfront property so I wouldn't have to worry about my truck parked on the road. Nice folks out there in the country.

My final stop was the gravel bar in the rapids in the fading light. I'm sure glad I stopped there! I picked up a deer jaw, an antler tine partially in matrix, a perfect horse astragalus (ankle bone), a 3 x 3 inch section of mammoth tusk bark, and a very large partial bone that looks bigger than anything on any cow I've seen. I filled a backpack with cool bones, about 90% of which passed the flame test (mineralized fossils don't give off a burning smell). No spear points this time, but quite a worthwhile, exciting, and adventurous way to burn a vacation day.



FIGURES 14-16: Top 2 photos front and back of same group of bones including horse astragalus in upper right of each photo. Bottom photo shows a deer jaw and 2 antler fragments. Note matrix on long tine.



FIGURES 17-21: Mammoth tusk bark top two photos, possible mammoth ilium (hip bone) fragment bottom two photos plus photo on next page



October 17, 2004

I hadn't visited the Lost Creek Spillway in Jacksboro for a while, so I got up early and took a spin that direction, arriving at daylight and crossing the dam on my bike. The place is looking overgrown, and footprints abound on the hillside, but the pyritized micromorphic goniatites are still there en masse. You just need to get your eyes within a foot of the ground to find them. They ranged from 1/16 to 3/8 inch in diameter. I moved about 150 yards along a certain horizon and picked up a half of a film canister of the little dudes over the course of a couple hours before feeling the tug of other sites. I've taken my share of these goniatites and I'm not seeing any new species, so perhaps my work is done there for a while. In the meantime, I don't mind directing interested collectors how and where to find these fossils.



FIGURES 22-23: Various pyritized goniatites from the Finis Shale left. Right photo shows various cephalopods bottom row; gastropods, *Conularia*, and *Lophophyllidium* horn coral middle row; and bivalves *Astartella* and *Nuculopsis* top row

I made a run to Fort Worth, all the time feeling bad about directing Marc de Vries the day before to the site I was about to explore. Marc did quite well there, lugging out a few nice ammonites, echinoids and even 2 large vertebrae from the Duck Creek formation, but he parked exactly where I told him to and returned to a broken window and ransacked car. The miscreants even took his cooler with drinks and his fossil map!

Anyway, I parked in a safer spot and walked to the site. I spent a little time and was rewarded with 5 *Macraster* echinoids, a couple decent *Holasters*, and 3 or 4 ammonites including a very nice 12 or 13 incher with some matrix on both sides. I was happy with my finds, and happier with the unmolested condition of my truck when I returned.



FIGURES 24-27: Unidentified ammonite top left, *Mortoniceras?* ammonites top right, *Holaster simplex* echinoids lower left, *Macraster* echinoids bottom right

Last stop: Grayson formation. I only had a half hour left to hunt, but was content to land one nice *Hemiaster calvini* echinoid, a couple partial *Mariella* ammonites, and some bivalves.



FIGURES 28-29: Grayson fm finds include *Hemiaster calvini* echinoid left, 3 bivalves and 2 *Mariella* ammonites right

That was a fun weekend, but a bit too much driving for one guy. I'm the type to stick to my plan even if I have to go alone. I made family time on Saturday, but I think I still better "pay back in" before the next hunt.