

## A TOUR OF SELECTED TEXAS PALEO SITES

6/9/04

Since my good friend Robert Bowen will soon be departing for Afghanistan for a year for contract work, we decided that a fossil collecting sendoff was in order. We joined forces with Kevin Durney, a mutual friend, echinoid hound, and all around knowledgeable collector. My boss was kind enough to let me off for the afternoon without it counting against my vacation time, so the die was cast...with one snag. The afternoon brought a deluge of Biblical proportions. Some areas got in excess of 8 inches of rain. The road I drove was so flooded that opposing traffic was often in my lane. Such conditions are a boon to fossil collectors in search of freshly exposed specimens.

The other two guys hit another site before I joined them and had a very satisfying take of *Salenia texana* and *Holactypus* echinoids as well as Robert's shark teeth, *Kleptostyrax* (sorry, Robert, I couldn't resist!), and *Paleopagurus banderensis* crab claws. We converged on a Lower Glen Rose site north of San Antonio which proved well worth the stop. Over the course of an hour or two we each collected about 3 dozen *Salenia texana* in varying states of preservation. In addition, we each collected at least one *Holactypus* specimen, and I got a partial *Tetragramma* and a huge *Nerinea* gastropod to boot. Kevin swelled with pride when he saw me collecting gastropods-NOT!



**FIGURE 1:** A huge crab claw *Paleopagurus banderensis* donated to the Woehr Collection by Robert Bowen



**FIGURE 2:** *Holactypus* and broken *Tetragramma* echinoids top left, 14 of my better *Salenia texana* echinoids, 3 irregular echinoids *Heteraster obliquatus* center, *Neithea* bivalves and *Turritella* gastropod center left, huge *Nerinea* gastropod bottom

We did an impromptu “scientific study” which I found rather hilarious. I scanned the exposure first with both guys following at intervals behind me. We each came out with equal numbers of *Salenia*. So statistically, I MISS OVER 2/3 OF THE FOSSILS! I don’t know if it was the rain on my glasses, sloppy technique, or just being blind as the proverbial bat, but it is insightful and humbling to know how efficient a collector you are in the field.

A few hours of “doggy paddling through the quagmire” were enough as we had no desire to become part of the alluvial fan, so we shook hands and parted ways.

6/11/04

I am constantly studying maps and old geological reports of the San Antonio area, and lately I have put considerable effort into exploring the sparsely exposed Eagle Ford outcroppings on my turf. Months ago I perused a road cut near my office reported reveal the Buda/Eagle Ford contact. At the time I didn’t know what I was looking at and found nothing. Now slightly more experienced, I recognized the thinly bedded brown and yellow limestone instantly and stopped for a look. Spending about 40 minutes of my lunch hour there, I was happy to find about 10 shark teeth including some of the usual suspects: *Squalicorax*, *Ptychodus*, *Cretolamna*, etc.



**FIGURE 3:** Eagle Ford shark teeth from the San Antonio area

6/12/04

Time for a road trip. With a freedom pass in hand, I opted to check out some exposures along the I-35 corridor. After recent hard rains, I couldn't resist the urge to visit the Del Rio exposure in the Waco Pit for the first time in 8 months. It was well worth the trip. I spent about 2 hours there and landed 2 nice shark teeth, a nice echinoid, and about 30 keeper pyritized ammonites ranging from 3/32-1/2 inch.



**FIGURE 4:** Waco Pit finds including *Goniophorus* echinoid, *Cretolamna appendiculata* shark teeth, and pyritized ammonites of a half dozen species

Heading south, I struck out at a few construction sites. The Austin Chalk between Waco and Temple did not hold my interest in the exposures I explored.

I stopped between Georgetown and Austin and tried to locate the Eagle Ford. I failed at that, but was rewarded for my efforts with a few surprises. I randomly stopped and explored a creekbed and was happy to lay hands on 2 ammonites and 4 large echinoids from the gravel bars. All the fossils showed considerable weathering. I wish I could have found more bedded so I could have beaten Mother Nature to them. Anyway, 3 of the echinoids are *Macrasters*, and one appears to be a decapitated *Holaster*. Unless the parent formation is too small to be mapped, I suspect these fossils came from the Washita group. A nearby rock pile gave up a large *Cymatoceras* nautiloid which will go to a friend in the office.



**FIGURE 5:** One nautiloid, 4 water worn echinoids and 2 ammonites from the Austin Chalk

Dropping further south I did a better job of locating an Eagle Ford exposure which I've never visited. With recent field tutelage from Robert Bowen I've learned to more quickly size up an exposure and find the productive layers. Between the layers of hard limestone are softer layers often revealing ground up oyster shell on the edges. These condensed zones are money for the shark tooth hunter. Pulling away the limestone overburden better exposed this thin, gritty zone, which to me looked like a mixture of salt, red pepper, black pepper, and crushed shell.

Some teeth have intact roots and pronounced enamel serrations. I got about 30 teeth including some dandy *Squalicorax*, *Ptychodus*, and *Cretoxyrhina* specimens plus a bonus *Enchodus* jaw, some isolated fish teeth, and several fish vertebrae from 1/8 to 1/2 inch diameter.



**FIGURE 6:** Look Mom, no cavities! I'm quite pleased with this *Enchodus* jaw. Only one tooth was exposed when I found it. It will be displayed with pride in my glass case.



**FIGURE 7:** A satisfying take of shark and fish teeth from the Eagle Ford including *Squalicorax*, *Cretoxyrhina*, and others



**FIGURE 8:** Several nice *Ptychodus* teeth from the Eagle Ford



**FIGURE 9:** Eagle Ford mystery tooth



**FIGURES 10 and 11:** Miscellaneous fish and shark teeth in matrix upper photo, 3 species of shark teeth in one small slab. The big one is *Squalicorax falcatus*



Moving on to another Eagle Ford site, I again found the gritty layer and bagged a number of teeth. In addition, several *Squalicorax* and *Ptychodus* specimens were extracted from the surface of the hard limestone.

I had time for one last stop. In some 50 year old documentation I read about another Eagle Ford exposure near a cemetery. I found the road cut and began poking around about 6 feet down from the top. I peeked up over the top of the hill and saw 100 year old headstones just 15 feet away. In the fading light I began to envision a rotted hand jutting out of the soil and flailing wildly for a grip on my throat. I thus ended my creepiest collecting experience to date, and opted to leave without finding anything. Chalk another one up for adventure.