

JACKPOT IN JACKSBORO

During the week I pour enormous effort into researching fossil collecting sites around Texas. In addition, I shamelessly filch information from those in the know about any other productive sites off the radar they may care to share. After my first outing as a member of the Dallas Paleontological Society was cancelled due to high water levels in and around Lake Texoma, I opted to blaze my own trail since I already had a spousal permission slip in hand for Sunday 7/13/03. I chose to hunt the Pennsylvanian marine formations in and around Bridgeport, Jacksboro, and Mineral Wells, and with careful research and planning make this one day blitzkrieg a series of surgical strikes rather than a wild goose chase. Although I did indeed hit the jackpot in Jacksboro, each location gave up treasures of its own with an ample exchange of sweat.

I stayed up until 2:30 a.m. on Friday researching details, had no time for a nap on Saturday, and was too excited to sleep Saturday night, so I packed up my truck at 10 p.m., kissed the wife goodbye, grabbed a dozen Krispy Kreme donuts, and headed north on 281. 2 hours and 10 donuts later I pulled over at a rest area and crashed for an hour. 2 hours later I rolled into Bridgeport after dodging at least 30 deer feeding actively during the full moon.

The festivities began at a small roadcut that I had found overlooking Lake Bridgeport on my June 8 trip. A reference book I've since bought described this very cut as "the most fossiliferous crinoid collecting locality in Texas." Funny how I found that one on my own before knowing of its legendary stature. This was the fabled "sponge/echinoderm facies". A month and a half of weather had not yet allowed the cut to erode and expose the quantity and quality of stuff I took last time. There were still TONS of small crinoid stems, enough to act as roller bearings under my feet, causing each errant step to accelerate me downhill on my buttocks several times.

Instead, I focused on the drainage at the base of the cut and located a handful of straight cephalopod shells, a crinoid cup base (Figure 2 row 2 second from left), several round sponges and a rare cluster of crinoid arms. These arms are quite fragile and this level of

preservation is not very common. The fossil looks like the fingers of 2 hands in praying position. See Figure 1 bottom center.



Figure 1

My next stop was the “molluscan facies” just south of the lake. A borrow pit just south of Hwy 380 provided quite a cache of mollusks, mainly gastropods. The mode of preservation was quite alien to me. The reddish Lake Bridgeport shale eroded into nodules or concretions, with fossils weathering out of these concretions. Often the gastropods were half way in these semi-eroded concretions, white in sharp contrast with the red matrix. See Figure 2 bottom right. This area gave up a number of interesting bivalves (clams) as well and a handful of micromorphic (dwarf) straight cephalopods.

Running out of time, I dropped my plans to search for plant material on the west side of the lake and headed for Jacksboro, my favorite spot to hunt fossils in Texas. The Lost Creek Spillway at Lake Jacksboro is a dugout hillside adjacent to the lake dam, which was made from this transplanted material. The resulting hillside exposure

is fossiliferous from top to bottom. The dark gray dirt and rock at the base is Finis shale while the top is yellow Jacksboro limestone. This area routinely gives up a cornucopia of species including straight cephalopods, goniatites (like ammonites), gastropods, brachiopods, crinoids, horn corals, and occasionally shark teeth. This day did not disappoint me.

I had the whole place to myself and for good reason. It was an honest 100 degrees and sunny. My water ran out fast and my head began to throb, so I dropped my gear and jumped in the lake for a half hour with all my clothes on. Wow, that felt good. With wet clothes and a slight wind, evaporative cooling gave me the lift I needed to proceed.

I found plenty of neat cephalopods, gastropods, etc., as I walked hunched over up and down the mini gulleys cutting vertically through the outcrop, and plopped down each 5 feet on the way down for a closer look. This level of scrutiny finally paid off with a very nice pyritized goniatite (Figure 1 top left). This critter is like an ammonite but its suture pattern is sort of zigzagged. Upon close inspection one can see reflections of pyrite and iridescent shell material. I was quite pleased with this find and praised my maker accordingly.



Figure 2

The skull throbbing persisted in the Texas heat and although I wanted to stay, I began wrapping things up after about 3 hours.

Remembering that my book noted the shale/limestone interface to be extremely fossiliferous, I opted to make one transverse tromp across the face. And I'm glad I did! 50 yards later a weird gleam caught my eye. There before me was the unmistakable patina of tooth enamel. It took me several seconds to process the scene, but I grabbed 2 big fragments of a *Petalodus ohioensis* shark tooth, fit them together, noticed the root was missing, and found it inches away from the other pieces. After cleaning and supergluing, the end result can be seen in Figure 1 top right. This must have been an enormous shark as the tooth is over $2 \frac{3}{8}$ inches long!

As I was walking the mile back to the truck, I was quite pleased with the goniatite partials (Figure 2 top row) and straight cephalopods (Figure 2 middle row far right) raided from this site.

Wiped out from lack of sleep and quasi heat stroke, I stopped and napped in a shady rest area on 281. I woke up an hour later sweating in the hot, still air, but this was enough respite to stave the throbbing cranium. I had another site on my itinerary.

Just west of Mineral Wells on Hwy 180 at the east bank of the Brazos River is an impressive road cut through the red sandstone layers above and maroon shale below. I parked, jumped out of my truck, and within seconds laid my hands on a rare *Conularia* (Figure 1 bottom row far right). With renewed wind in my sails I plowed ahead, climbing up the steep drainages and searching the gravel. I was soon rewarding my maker once again upon locating a nice rolled trilobite weathered out of the shale. I quit while I was ahead and headed home, foregoing the search for plant material in the Lake Palo Pinto spillway. I'll have to hit that one next time.

I still can't get over the unbelievable quality and quantity of fossils recovered on this one day, one man trip. I drove 675 miles round trip in addition to putting in 12 hours of searching in the Texas summer heat, and it was well worth it. Now that I've slept it off, I'm ready to go again.