

BETTER LIVING THROUGH FOSSILS
A WEEKEND STUDY OF OZAN AND DUCK CREEK FORMATIONS
FEBRUARY 22-23, 2004

“Baby, I’m hitting the bars this weekend. I’ll be back sometime Monday night.”

“Have fun, dear. Don’t forget to call.”

What is wrong with this picture? Those of you who know me well know I don’t drink. My bars of choice are the gravel bars in the North Sulphur River, and the Great Outdoors is my elixir. Rapid erosion exposes the Ozan Formation in the NSR basin, famous for its cornucopia of Cretaceous marine fossils. After upholding my fatherly duties Friday and Saturday I could no longer stand the suspense so around 10 p.m. I bid farewell to my wife and boy, then spent about 4 hours steaming north on 35, crashing for 3 hours in a rest area before getting up early enough to be at the Hwy 2990 bridge over the NSR at daylight.

I once again had the place to myself, but countless footprints were testament to the legions of fossil zealots there before me. Still, the place is large enough that the potential for good finds always looms around the next bend. As I scanned the gravel bars looking for elusive bits and pieces of mosasaurs, my eyes locked on a curious bit of symmetry amongst the relative disarray of gravel. In a little washout in the middle of the river I lifted my first Indian artifact from the area, a cute little 2 inch point which sparkled in the sunlight. Texas Amateur Archeologist Association founder Bob McWilliams suggested that this point may actually be a stemmed knife made from a reddish hue of sugar quartz, with resharpening explaining the beveled edges seen when viewed from the tip toward the base. See Figure 1. With this sort of serendipity working for me, I was ready to see how rest of the day would unfold.



FIGURE 1: Stemmed knife, mosasaur tooth, shark tooth from the NSR

I marched up river, zigzagging back and forth between gravel. Along one bank I soon encountered the familiar red cobbles which tip you off to a red zone outcropping just upstream. Within seconds I laid hands on a very nice 3 inch *Pachydiscus paulsoni* ammonite, its prominent white suture pattern clashing with a background of brick red. Pocketing a few nice black phosphatized baculites as well as reddish specimens casting iridescent colors from the mother-of-pearl shell material, I soon laid hands on a 3 inch black blob in gray clay that turned out to be a broken piece of mineralized bone.



FIGURE 2: Unidentified bone fragment from the gray section of the Ozan Formation

After an overnight soak in a bucket of water, then a session with a dental pick and an air scribe, I relieved the gray matrix to reveal the detail seen in Figures 2 and 3.



FIGURE 3: Another view of the same piece of vertebrate material after some air scribe work to relieve the matrix

Finally at the convergence of a tributary creek with the river I switched gears from working the gravel bars to scaling the steep riverbanks, hanging onto tree roots, and sinking my pick into the most fossil-fertile stretch of red zone around. I picked a few fossils right out of the walls, but most of the material I touched with my pick got away from me and slid down into the creek 50 LBS at a time. Every now and then I climbed down to pick through the crumbles and was rewarded with two very nice *Trachyscaphites spiniger* ammonites and an exquisite 5 inch *Placenticerus planus* ammonite. But the fun didn't end there. While clawing randomly at the red zone I was ecstatic to see a big mosasaur tooth roll out and come to hand. Had it not been for the broken off tip this would have been a 2 inch tooth. A small, sharp piece of enamel jutting straight out from the bank caught my eye, and it turned out to be a 5/8 inch long shark tooth lacking its root. Both can be seen in Figure 1.

At one point I saw a couple other guys approach from the river, then turn around and head back as if I had beaten them to their favorite spot. They would have been more than welcome to join me had they come within earshot. Perhaps they were leary of the crazy guy swinging a pick while hanging 12 feet off the creekbed by tree roots. By the time I got back to my truck, I smiled as my back

and shoulders groaned under the burden of a loaded backpack. Figures 1 through 5 parade the spoils of the NSR.



FIGURE 4: Ammonites, clockwise from top left *Trachyscaphites spiniger*, *Trachyscaphites spiniger*, *Pachydiscus paulsoni*, *Placenticerus planum*, *Menabites*, *Placenticerus planum*, *Menabites*

For those of you unfamiliar with this flavor of fossil hunting I have a few tips. I've not made any truly stellar finds, but I have always justified my time travel expenses associated with my 3 visits to the NSR by adhering to a few simple tenets.

- Get your feet wet. Some folks hunt only the dry portion of the gravel bars, and I've found a few nice pieces while wading gravel submerged in clear water up to knee deep.
- Hunt when heat or cold make conditions a bit uncomfortable. Your favorite spots will hopefully see less traffic when the average fossil hound isn't comfortable being exposed to the elements.
- Create new exposure by light digging. In the Ozan formation, I've found a few nice ammonites along the gravel bars, but by far the best ones have come from clawing at the red zone. A little pick action will bring unweathered specimens to hand. Climb the river banks to get where most

folks don't care to expend the effort. If I hadn't dug last weekend, one big mosasaur tooth and 3 or 4 killer ammonites would still be buried.



FIGURE 5: Gastropod *Turritella*

I packed up, struck out at a couple other spots, and meandered over toward Lake Texoma where I grabbed a 12 inch ammonite plus a couple partials from the lake shore before spending a restful 7 hours in the back seat of my truck with seat belt buckles digging into my spine.

With a belly full of IHOP French toast I was in my buddy's favorite ammonite creek near Lake Texoma (don't worry Carl, your secret is safe!) Soon I was in a prolific Duck Creek ammonite exposure, and the pickings were good! I got a couple small ammonites in the 3-6 inch range, plus a few small, straight ribbed ones, but the main event were 12-24 inch *Oxytropidoceras* and *Eopachydiscus* specimens. I poked around and landed 8 before I decided to leave. Not bad work for an hour. When I went to lift my pack, I could have sworn I was standing on the strap, it was so heavy. With a backpack full of 6 plus a 12-14 incher under each arm, I huffed it back to the truck in one haul, and my hip joints let me know their opinion of the situation. See Figures 6 through 10 to examine the plunder.



FIGURE 6: A suite of ammonites from the Duck Creek Formation including *Oxytropidoceras* and others



FIGURE 7: A Duck Creek Ammonite begging for prep work. Note the prominent sutures, ribs, and tubercles



FIGURE 8: An *Oxytropidoceras* ammonite with exaggerated suture pattern



FIGURE 9: More cool ammonites from the Duck Creek Formation



FIGURE 10: My first ever *Eopachydiscus* ammonite from the Duck Creek Formation

Heading west to another creek exposure near Texoma, I could see big ammonites 20-30 yards away as soon as I stepped out of my truck. I spent a couple fruitful hours at this little stop in the Duck Creek Formation, first snagging a death slab of 7 weathered regular echinoids and a couple straight, ribbed ammonites. Moving upstream I seemed to find a good *Eopachydiscus* every 20 yards. The familiar curvature of the whorl jutting out of the gray marl is a welcome sight. I spent 30 minutes on one big boy which turned out to be a 17 inch. Working back toward the truck along the opposite bank I found 2 or 3 garden grade specimens weathered out and lying on the bank. But the best specimens were the ones still mostly buried in the bank, unweathered. I spent another half hour standing in frigid, knee-deep water exhuming a spectacular 13 inch *Eopachydiscus* with a prominent suture pattern exposed on the inner half of the whorl, fully smoothing out well before reaching the living chamber. Its twin came to hand shortly thereafter.

After hauling 8 of these things up the hill, I opted to head out even though I could easily see a couple nice ones in the bank within easy grasp. You only need so many of the same thing, I suppose. See Figures 11 and 12 to survey my take.



FIGURE 11: A bevy of *Eopachydiscus* and other ammonites from the second stop in the Duck Creek Formation



FIGURE 12: A very weathered mortality slab of 7 Spatangoids

From there I tried to find a productive echinoid bearing exposure in the Woodbine Red Branch Formation as listed in the HGMS echinoid book, but that turned out to be a wild goose chase. Whoever wrote those misleading locality directions should be forbidden from publishing any sort of guide book again. People bank their time and gas on this type of information, so it could at least be written coherently! Now off my soap box.

A heavy downpour Monday afternoon slowed things a bit, and I struck out searching for shark teeth in Sherman as the gravel bars were under the raging creek. Opting to head home, I became ensnared in the DFW rush hour snafu, but got home by 9:30.

Again I felt as if I had “sucked the marrow out of life” while on the road experiencing the outdoors. I thrive on leaving work behind me for a while, either alone or with friends, searching for fossils, eating bad food, and sleeping on no set schedule with wet shoes and muddy clothes. This relaxed pace gives me time to take inventory of all that is good in life, and start missing my family. Better living through fossils, you ask? Heck yeah!