

## BRIDGEPORT BINGE 061904

After helping Mama clean house and checking on the snoozing boy, I hit the road Friday night around 10, drove 4 hours north, and crashed for a couple hours behind a gas station south of Fort Worth. I was up at 4:30 and on a Duck Creek site before daylight where I snagged 2 ammonites in the beam of my flashlight before steaming off to Bridgeport for a 7 a.m. rendezvous with the Dallas Paleontological Society. Our objective was to enter a Hanson Quarry, collect numbers of quality Pennsylvanian (300 million year old) marine fossils, donate the firstfruits to the Emerson Meyers Geological Institute, and keep the remaining spoils for our own collections.



**FIGURE 1:** Duck Creek Ammonites – nothing museum quality, but not bad in the flashlight beam

Our group was small, consisting of a combination of DPS officers and members including Fred Ransdell, Richard Benefield, Mark McKinzie, Velma Urbano-Garza, Don and Jane Fagerstrom, Barbara Elliott, Marquita Westerman, and myself. I guess mandatory donations scare the masses away. I saw the situation as an opportunity to boost the DPS' image while possibly stumbling into some excellent collecting I would otherwise have zero chance of accessing. You have to take a few risks in collecting, and the only sacrifice here was my sleep schedule and some diesel. As we mingled and I met some new faces, people pulled out some of their treasures for others to see. I was especially impressed with Barbara's arrowheads,

and the Fagerstroms got my instant respect by producing a Plesiosaur vertebra the size of a coffee can.

Well, the quarry action was a bit slower than we had anticipated. The bulk of the exposures were Chico Ridge Limestone which held a few crinoid cups, an occasional partial trilobite, a few gastropods and such. I was happy to donate everything I found. That way I didn't have to clean anything! We visited a Jasper Creek exposure which had ludicrous numbers of crinoid stems, a few partial crinoid cups, and lots of sponges. The main event was the sponge action, as at least 3 or 4 species were represented including *Girtyocoelia* and a couple more undescribed species. We were able to donate lots cool sponges to the EMGI and still hang onto a few for ourselves. Not a bad deal.

Once the donation portion of the trip was behind us, our productivity skyrocketed as we canvassed various Bridgeport area exposures. Mark McKinzie first led us to a couple road cuts in the Jasper Creek Shale. Among the countless crinoid stems we were able to pluck out individual *Archaeocidaris* echinoid spines and plates (attachment points for the spines). Fred picked up a partial trilobite, and I was fortunate to lay hands on a near complete *Delocrinus* crown lacking the tips of the arms, plus a crinoid cup quite similar to the specimen collected minutes before by Velma.



**FIGURE 2:** Various crinoid stems and plates, echinoid spines and plates, and orthocone cephalopods

Mark then moved us to a hillside exposure of Lake Bridgeport Shale which I had visited a year prior and collected a few nice bivalves, gastropods, and orthocone cephalopods. My confidence in the area was rather low initially, but a team of sharp eyed collectors made me realize the potential of the site. Barbara found one complete and two partial *Paladin* trilobites, Mark found a disheveled *Gonioloboceras* goniatite, and I found a decent *Liroceras* nautiloid among other finds for the group. These fossils were found in red shale nodules. Trilobites were black while the bivalves, gastropods, and cephalopods were white, all in beautiful contrast to the red shale.



**FIGURE 3:** Goniatites top row, from left *Gonioloboceras*, followed by unidentified specimen, two *Liroceras* nautiloids right. Gastropods and pelecypods bottom row, from left two *Worthenia* specimens followed by two *Trepostira* and two *Meekospira* gastropods, one *Nuculana* bivalve and three *Nuculopsis* bivalves



**FIGURE 4:** Bridgeport bevy including several pyritized goniatices, one *Paladin* trilobite, one *Delocrinus* crown (top center), one *Plaxocrinus?* cup (right of *Delocrinus*), pyritized *Nuculana* pelecypod (top right)

A note on fossil preparation. Mark had commented that the Lake Bridgeport Shale yielded nicely to the microblaster. With that in mind, I took a few suspicious nodules home and hit them with a 125 PSI blast of baking soda through a .060 nozzle. One nodule gave up a nice 2 inch diameter goniatic which was barely exposed when I found it. Pure air scribe work would have destroyed this fossil. Thanks for the tip, Mark!

Moving on we stopped by a graded, eroding hillside exposure of gray shale which granted me a small *Paladin* trilobite within the first 5 minutes. Its head is tucked under its body with some loss of facial detail, but he is pretty much all there. On hands and knees studying the ground from a few inches away, I was fortunate enough to land about 5 pyritized micromorphic goniatices from about 1/32 to 1/8 inch diameter. Moving up the hill to a more pronounced micromorph zone, I was able to land 6 more pyritized goniatices to 1/2 inch diameter within 10-15 minutes. It pays to shop here!



**FIGURES 5 and 6:** Cool pyritized goniaticites from Bridgeport area magnified 60X. Possibly *Paraschistoceras*

While heading back to town for lunch we stopped at a new lakeside exposure where Mark was quick to land 3 or 4 nice goniaticites. As a group we searched briefly and Richard picked up one more good goniaticite while the rest of us collected nicely preserved, large *Trepostira*, *Glabrocingulum*, *Meekospira* and *Worthenia* gastropods.

We had a nice lunch at a pizza joint, then the group disbanded while I returned to the last site for a closer look. I landed one nice *Liroceras* plus a large, partial *Gonioloboceras* in addition to a good spectrum of gastropods. It turns out that the small portion of the exposure where we started was productive Lake Bridgeport Shale, while the bulk of the exposure was unproductive sandstone.

With a little energy left, I headed off to Jacksboro for a quick look at the spillway. I had my bike in the truck to make the endeavor a little easier on my depleted body. I stayed about 2 hours and made some very satisfying finds. I grabbed some nice, large pieces of carbonized wood, a couple *Conularia*, some shark coprolites, and a nearly complete *Orodus* shark tooth from the black shale at the base of the exposure. Moving higher, I relocated a goniatite micromorph zone and collected about a dozen nice specimens from 1/8 to 1/2 inch diameter. I lucked into a few larger ones as well from 1-2 inches, including a large *Liroceras* and a nearly complete *Gonioloboceras*. When I began cleaning things at home, a “coprolite” turned out to contain a *Symmorium* (*Cladodus* in older literature) tooth with the cusps knocked off. This site is pretty large, and I can only look at a little bit of it at a time. It seems to erode quickly and expose new fossils with each rain. It is a long drive, but it is my favorite collecting site in the state.



**FIGURE 7:** Beloved Lost Creek Reservoir Spillway area, Jacksboro, TX. Finis shale below, Jacksboro limestone above



**FIGURE 8:** Jacksboro sampling including pelecypods *Pinna*, *Myalina*, and *Nuculopsis* plus coral-like *Conularia* (top 2 rows), corals *Lophophyllidium* and *Paleacis* (third row down), gastropods *Treospira*, *Strobeus*, and *Pharkidontus* bottom row



**FIGURE 9:** Shark teeth *Orodus* (left) and *Symmorium* (*Cladodus*) (right) from Jacksboro



**FIGURE 10:** Goniatites, nautiloids, and orthocone cephalopods from Jacksboro including *Gonioloboceras*, *Liroceras*, *Brachycycloceras*, and others



**FIGURE 11:** Pyritized micromorphic goniatites including *Eoasianites* and others flanked by two orthocone cephalopods *Michelinoceras*

By 8 I had had a full day. Being awake and active for so long, I began to hallucinate on the drive home and sacked out in the back seat of my truck for 4 hours near Lampasas while the crickets chirped the night away. I ultimately made it home by 5 a.m., just in time to hit the sack before the sun came up. With exhaustion and a great Father's Day now behind me, I'm ready to dive into the great finds next weekend should bring.