

May 24, 2008: Texas Cretaceous Invitational

I was graced this past Saturday with an invitation to collect with internet collecting buddy John Jackson at some of his personal honey holes that have produced well for him in the past. I kicked off the day at daylight with a visit to an exposure of the Georgetown fm (103 MYA), an undivided grouping of Washita group formations mapped in a thin ribbon roughly from Belton to San Antonio and points west. This site produced three *Holaster simplex* echinoids, one ugly, one covered with worm tubes, and the other slightly damaged but huge for the species. A whopping 5 inch *Macraster* echinoid came to hand as well, but it was so ugly that it left my hands. Two *Mortoniceras* ammonites also created a little heft in my pack, but the highlight of this leg of the trip was the splashing I heard upstream. As I closed in on the source I saw something flopping around in the water. At first I thought it was a big beached catfish. When I closed in it stood up and turned out to be a staggering, swaying raccoon. Thinking it might be rabid, I snapped a picture at a safe distance and went about my business.



FIGS 103-105: Georgetown fm echinoids *Holaster simplex* and ammonite *Mortoniceras* sp. (Sites 173 and 218)



FIG 106: A seemingly rabid raccoon at Site 218

When I arrived at John's house he and his wife were on the driveway to greet me, his lightweight Kevlar canoe already lashed to the rack on his truck. After exchanging introductory pleasantries John and I hit the road and deployed his canoe into the stream from private land he has access to. I was amazed at how fast a good canoe will go with the right person propelling it. John is an expert canoeist having won some highly competitive races in the past and is even known by canoeists in my area. At any rate we were clipping down the stream at about the speed I could have maintained under those conditions with my motorized jon boat.

We didn't have to go far before John made the first find, a hundred year old bottle with bubbles in the glass. Very cool. I learned a little about old bottles and will now be on the lookout for them on future exploits. This particular stream intermittently exposes the Ozan formation (78 MYA) capped with Pleistocene gravel. We continually shifted gears from small chalky gray bluffs to gravel bars with some success. *Lopha* and *Exogyra ponderosa* oysters were everywhere, and we picked up a few of the former.

We hoped for mosasaur verts, spear points, etc. but on our pass downstream found none. Clear, shallow water combined with a good viewing angle while headed upstream led to higher success. John picked up a nice little chert scraper in the water, then later grabbed another blade on the edge of a gravel bar that we had both walked by earlier.

Pressing upstream of our put-in we poked around for a half hour in a chalk bluff where John had found articulated *Plioplatycarpus* mosasaur remains a couple years ago. With no luck there we pressed upstream to another similar bluff and here I found a nice *Menabites* ammonite at the base. I took my time, trenched around it, and pulled it out

of the ground relatively intact, despite the friable nature of the chalk. 30 yards later I pulled two small *Scaphites* ammonites together out of the bluff in a palm sized chunk.

Our next creek was an easy, quick mission that produced a horse tooth and a mammoth humerus or femur ball which I gave to John as it was something I already had a couple of.



FIG 107: Ozan and Pleistocene Site 461



FIGS 108-110: Ozan ammonite *Menabites* sp. this page followed by the same plus a *Scaphites* sp. ammonite double on the following page (Site 461)





FIGS 111-114: My best Ozan fm *Lophya* oyster followed by two points found by John Jackson this and next page (Site 461)



We took some time to go through John's collection afterward, and it proved to be an impressive assemblage of spear points, mammoth and mosasaur material. I always enjoy viewing the collections of other serious collectors as they give me something to aspire to.

Pressing on with little time to spare I used the last hour of daylight perusing a construction site in the Walnut fm which had seen some decent rain since my last visit 3 weeks prior. I took 25-30 *Heteraster* echinoids, some dusted

with pyrite, from a receding gray layer in the exposure wall as well as the tan clay and marl that had eroded out above and fallen to form the talus of the exposure. I was also fortunate to encounter 5 more *Phymosoma texanum* echinoids. My final find was my best, a large *Tetragramma texanum* echinoid in full bumpy splendor waiting for me to pick it up just as the sun went down. It was another well spent day on the fossil books.



FIGS 115-118: 3 Walnut fm echinoids *Phymosoma texanum* this and next page (Site 404)





FIGS 119-123: Walnut fm *Heteraster* sp. echinoids, some dusted with pyrite, this and next 3 pages (Site 404)









FIGS 124-127: Walnut fm *Tetragramma texanum* this and next 2 pages (Site 404)





May 26, 2008: Pecan Gap if you Please

It was Memorial Day and I had tired out the family early flailing around in the Medina River out by Pipe Creek. While Mama slumbered on the couch and the boy played quietly with his Lincoln Logs back home, my thoughts once again turned to fossils. Wheels turning in my head I remembered a large construction site in the Pecan Gap fm (72 MYA) worthy of a look since the crews would certainly not be on site.

My stomp through the yellow, gray, and white chalk began in balmy 97°F climes and I was light on water, so conservation of motion was in order. Within minutes I spotted the apical system of an *Echinocorys texanus* echinoid poking out of a weathering block of chalk. It was a little damaged but I managed to get it out without completely destroying it. A double bonus came in the form of 2 perfect *Pachydiscus travisi* ammonites that dropped out of harm's way when my hammer shattered the block.

Soon I picked up a *Eutrephoceras* nautiloid, a crushed *Hemiaster* or *Proraster dalli* echinoid, and a couple more small *Pachydiscus* ammonites. After a long walk of looking at chalk too fresh to productively expose fossils I meandered back to my starting point for a recursive search. My efforts were rewarded with a splendid *P. travisi* ammonite naturally eroding out of a block of chalk.

My pack was satisfyingly heavy as I lumbered back to my truck, and several display worthy specimens will now reside in a home more conducive to long term preservation than that provided by Ma Nature.



FIGS 128-131: Pecan Gap fm Site 20 and a compressed *Hemiaster*(?) echinoid found there (this and next page)

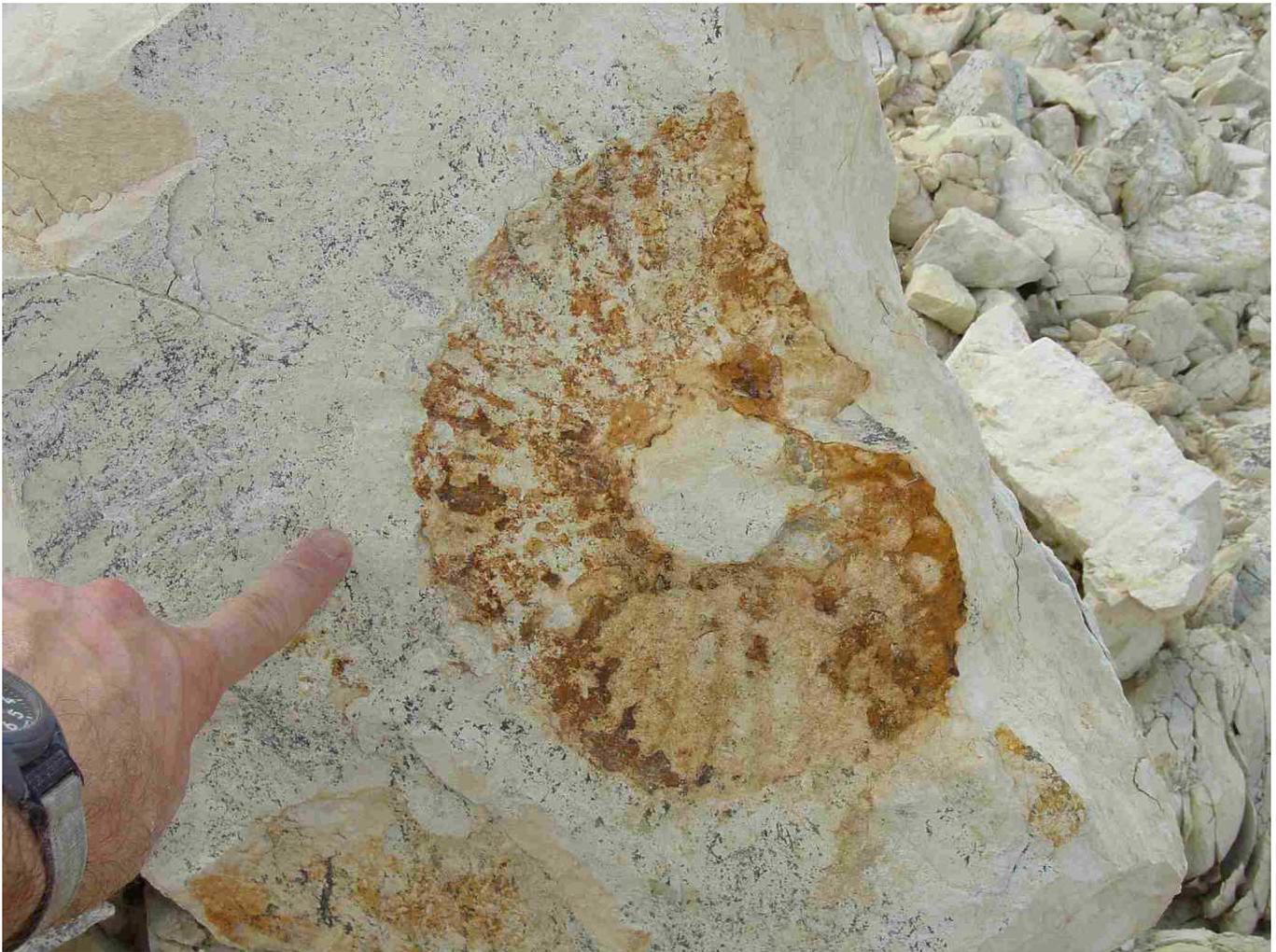




FIGS 132-133: Pecan Gap echinoid *Echinocorys texanus* before and after prep, some restoration performed (Site 20)



FIGS 134-135: Pecan Gap ammonites *Pachydiscus travisi* taken from the same block as the *E. texanus* (Site 20)



FIGS 136-139 From the Pecan Gap fm an unidentified ammonite imprint left in the field followed by 3 views of a superb example of *P. travisi*, this and next page (Site 20)





FIGS 140-141: Pecan Gap ammonites *P. travisi* and nautiloid *Eutrephoceras* sp. above, too close for comfort with the back end of my rock hammer below (Site 20)

May 31, 2008: Half Day on Home Turf

Well, I figured that if the Spurs couldn't make good on their home turf, I could. After some confusion over the schedule of family activities this particular weekend I got a late start and headed out of the house around noon on Saturday, jon boat and extension ladder in the bed of my truck. My plan was to hit several exposures of the Glen Rose formation (108 MYA) in search of echinoids possibly revealed by the last rains we had a few weeks prior. With a sub sandwich in hand I canvassed the back side of a crusty old outcrop that had apparently escaped scrutiny for some time. In the shallow weathered gullies of gray Glen Rose marl I was able to pick out perhaps a dozen *Salenia texana* echinoids.



FIG 142: 9 *Salenia texana* echinoids and one *Heteraster obliquatus* from Glen Rose fm Site 133

The outcrop was small so I was soon on the move, arriving at a well known highway road cut. 50+ years of collecting can reduce the productivity of a site, which is why I lay my ladder against the exposure to hit the high spots. My rewards were few but worth the effort, most notably being one perfect example of *S. texana* hiding high in the bluff.



FIGS 143-146: A superlative example of the Glen Rose fm echinoid *Salenia texana* in situ and prepped (Site 23)

A new road cut in this same *S. texana* zone miles away once again proved worth the visit. Apparently nobody knows about this site as it has been very productive on each visit timed after a good rain. In short I crawled around for an hour and took perhaps 20 *S. texana* echinoids and one weathered *Coenhololectypus planatus* plus a number of nice spatangoids (irregular echinoids) *Heteraster obliquatus*. A partial crab claw and ammonite fragment added to the take. In addition I bagged a number of bivalves and gastropods for a friend who likes them. Time for some Gatorade.



FIGS 147-148: In situ Glen Rose fm echinoids *Salenia texana* above, *S. texana* and *H. obliquatus* below (Site 445)



FIGS 149-150: Glen Rose fm echinoids *S. texana* above, *P. comanchei* and *H. obliquatus* below (Site 445)



FIG 151: Unidentified Glen Rose fm ammonite fragment left and crab claw fragment *Paleopagurus banderensis* right below (Site 445)

98 degree climes tend to relegate me to a series of short site visits punctuated by bursts of A/C in transit. Long searches at single sites this time of year are a bad idea. On that note I kept my next visit down to an hour of crawling on hands and knees, my gloves and knee pads complemented by elbow pads...this should paint a picture of a severely myopic collector getting as close to the ground as possible. All this prostrate collecting was well rewarded. Within my first 10 minutes of crawling I landed 3 diminutive *Salenia* echinoids. In the end I had 8 *Salenia*, one tiny *Globator hancockensis* in great condition, one floating micro crinoid, a couple crab claw fingers, and lots of *Isocrinus annulatus* (crinoid) columnals.



FIG 152: In situ Glen Rose fm echinoid *Salenia* sp. (Site 161)



FIGS 153-154: 8 Glen Rose fm echinoids *Salenia* sp. and one *Globator hancockensis* (Site 161)



FIGS 155-157: Additional views of Glen Rose fm echinoid *Globator hancockensis* along with rare unidentified floating crinoid above, stalked crinoid columnals *Isocrinus annulatus* below (Site 161)



FIGS 158-159: Crab claw fragments *P. banderensis* above one scallop *Neithea* sp. and 3 zone marking bivalves *Corbula harveyi* below (Site 161)

With the Texas sun whipping me like a slave I slid my jon boat into Canyon Lake and logged a few miles exploring islands with poor success. I broke out the goggles and fins and swam hard for a half hour for exercise and system cool down. A half mile from the put-in I ran out of gas and got some exercise rowing my way back in.

With diminishing daylight I worked another road cut using my ladder and grabbed a half dozen nice *Loriolia rosana* echinoids in the process. With it getting darker and me having to climb the ladder higher I knew it was time to throw in the towel. It was a fun and productive half day but I look forward to a change of venue as I think I have enough echinoids for a while.



FIGS 160-161: Upper Glen Rose fm echinoids *Loriolia rosana* (Site 249)



FIG 162: Pecan Gap fm echinoid *Proraster dalli*(?) in matrix exhibiting prominent peripetalus fasciole, or ring around the echinoid star (Site 266)