FOSSIL COLLECTING RESULTS
FEBRUARY, 2006

Dan Woehr

February 3, 2006

Out of work at 4 on Friday, I scrambled across town to an old reliable site in the Pecan Gap fm which I hoped would again produce its 75 million year old fossils for me to kick off the weekend right. Once at the exposure I began randomly crumbling ledges of the weathering, friable chalk and was soon rewarded with a rusty looking *Echinocorys texanus* echinoid about half complete and rather ugly. Repeating my random excavating, I was rewarded with another echinoid of the same variety, only this time in much better condition.

My little excursion was almost cut short by two big black dogs which made the scene and decided to snarl at me and close the gap to well within my personal space. Clutching my rock hammer I began a slow retreat, but they continued to close in menacingly. Finally I launched a fist size rock their way. It looked as if I were going to miss as usual, but one dog saw it coming, swapped ends and began running, only to have the rock catch it hard right in the middle of the back. No more menacing dogs!

FIGS 1-4: Pecan Gap fossils including *Echinocorys texanus* echinoid above, unidentified crustacean lower left, heteromorphic ammonite *Didymoceras*? lower right (Site 20)

Continuing my search, a strange pattern in the matrix caught my eye. Instantly I knew that I had found my first crustacean remains from this formation, and it appeared to be a section of lobster tail revealing 4 or 5 evenly spaced segments, each faintly dimpled. While quickly dismissed by most, I consider this find somewhat significant.

On my way out I found a nearly complete whorl of a heteromorphic ammonite, possibly *Didymoceras*. Not bad for an hour's work.

February 5, 2006

Sunday was a day of exploring with little to show for my efforts at day's end. There had been several sites in the South Bosque and Ozan formations as well as a Pleistocene exposure or two on my list for some time, and it was time to find something or cross them off the list. I ended up doing the latter unfortunately.

My final site for the day was a construction site in the Georgetown fm recently stirred by heavy equipment. I was told that this is the Fort Worth phase of the Georgetown fm (102 MYA). The upper layers of limestone and marl are a leached tan in color while the lower unleached layers are bluish gray. The lower layers tend to offer the best preserved fossils.

FIG 5: *Macraster pseudoelegans* (3) and *Holaster simplex* (1) echinoids from the Fort Worth strata of the Georgetown formation (Site 143)

I spent perhaps an hour at this site and grabbed a number of echinoids I was told were *Macraster pseudoelegans*. I also landed one *Holaster simplex* specimen plus four or 5 ammonites. After cleaning and inspection, I decided donate these finds to the Dallas Paleo Society for distribution to kids at fossil shows.

February 12, 2006

For a change of venue I hooked up with a friend for a look into the Paleocene (55 MYA) Wills Point Clay for crustaceans at some of his personal sites. I had one of those rotten head colds which made it feel as if I'd been wiping my nose with sandpaper, but I was too stoked to stay home.

Although the first site was obviously collected very recently by someone else, recent rains had nonetheless worked to our advantage. In 5 hours my buddy collected about 70 crabs and I got 35 comprising perhaps a half dozen species. This little gems ranged in size from perhaps 5 to 35 mm in maximum dimension. About half were in perfect shape, but the rest are certainly keepers. Several still had claws and/or legs attached. In addition I found a couple free claws as well, each about the size of a grain of rice.

FIGS 6-11: Wills Point fm crabs including undescribed specimen top left donated for description, *Xanthopsis texanus* next 3 frames, *Symethis* sp. below (Site 149)

FIGS 12-17: Wills Point crabs *Dromelites* sp. above with possibly a juvenile *Xanthopsis texanus* in far left of frame, *Dromelites* sp. ventral view showing legs middle left, *Tehuacana tehuacana* middle right, *Dromelites* sp. bottom left, shark tooth on back of same nodule bottom right (Site 149)

FIGS 18-20: Wills Point fossils including miscellaneous shark teeth top left, *Dentalium* sp. scaphopods top right, solitary corals below (Site 149)

FIGS 21-26: Wills Point fossils including button corals top left, gastropods top right (white specimens to far left of frame actually from the underlying Tehuacana limestone), phosphatic bivalve molds middle, Tehuacana limestone crab appendage segments and Wills Point lobster fragment and fish otolith (ear bone) lower left, Tehuacana limestone corals lower right (Site 149)

In addition I picked up a number of shark teeth, phosphatic bivalve and gastropod molds, plus many solitary corals. These specimens together should make an impressive Riker mount for the formation.

This was the most crabs I've ever picked up in one day, going a long way to address the crustacean deficit in my collection.

My final site on the way home was another mature construction site in the Georgetown formation. Fossils were sparse, but I did manage one six inch *Mortoniceras* with prominent tubercles as the sun dropped below the horizon. This was another day well worth the drive, and now I'm looking forward to my next trip.

FIG 27: *Mortoniceras* sp. ammonite from the Georgetown fm (Site 39)

February 17, 2006

On my Friday lunch hour I took the opportunity to peruse a road cut near the office in the Austin Chalk, yielding a partial *Salenia*-like cidarid echinoid and a nice bivalve mold. After work I dropped by a 2 year old construction site in the Lower Glen Rose fm which is well past its heyday. In short I collected a couple decent *Salenia texana* echinoids along with a *Palhemiaster comanchei*. No complaints for a work day.

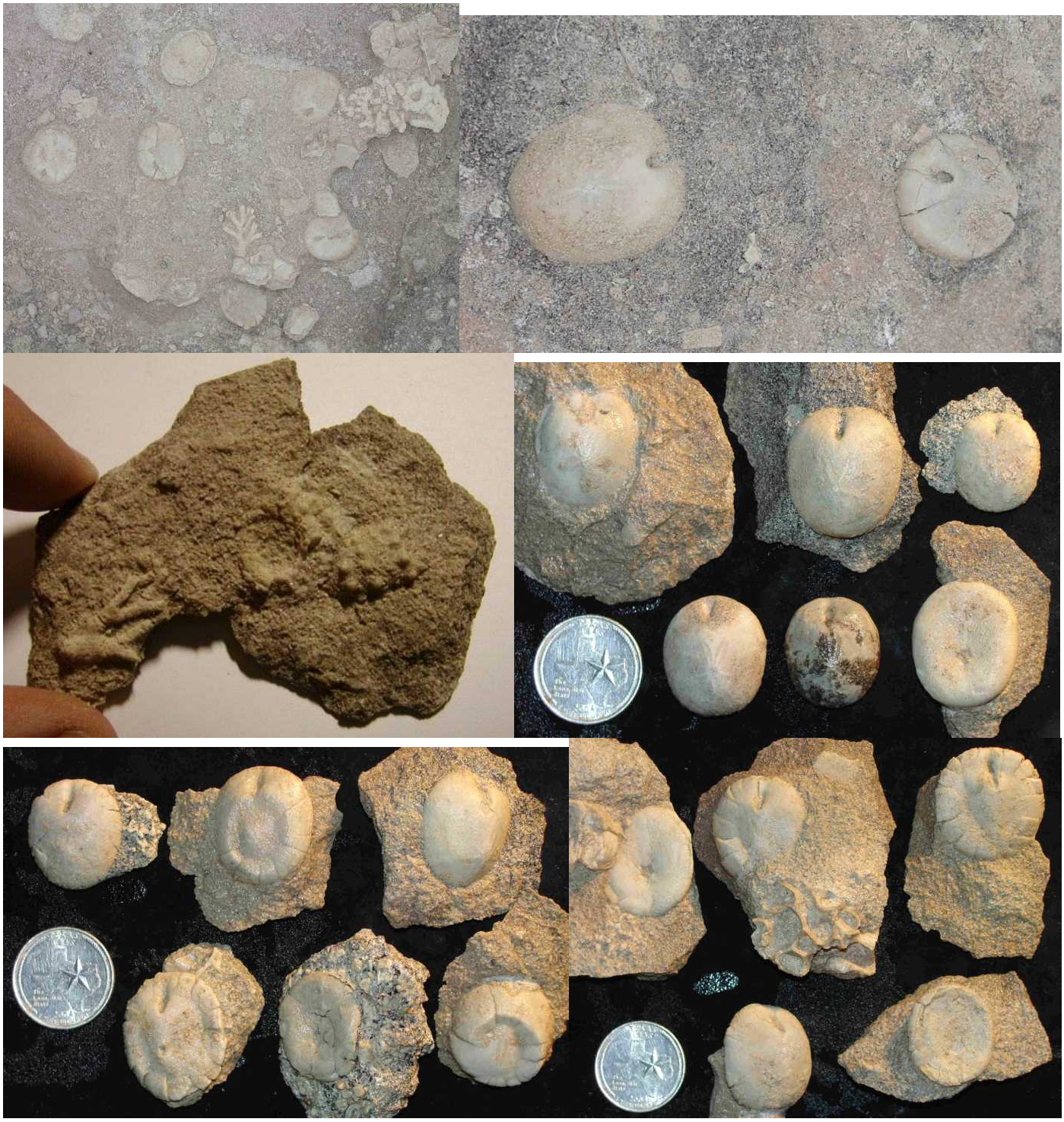
FIGS 28-30: Bivalve and *Salenia*-like regular echinoid test fragment from the Austin Group left and center (Site 16), two *Salenia texana* and one *Palhemiaster comanchei* echinoids from the Lower Glen Rose fm (Site 133)

February 18, 2006

I sent out a total of 5 invites for a collecting trip west of San Antonio scheduled for Saturday, but only one guy was able to make it, my local collecting buddy Farley Katz. I had arranged a trip to a quarry in the 78 MYA Anacacho limestone during the week and we were on site by 8:30 dressed like Yankees to brave the biting wind and cold.

Our collecting began in a big pit full of boulder piles comprised of Anacacho limestone which for whatever reason was not suitable for the quarry's end products. That's OK with me since the rock was left to weather for years, its fossils slowly eroding out. While I saw lots of branching bryozoans, miscellaneous bone fragments, and even a huge but shattered *Squalicorax kaupi* (crow shark) tooth, the main draw was the irregular echinoid *Phyllobrissus cubensis*. I think I took 10 or 15 by the time a quarry employee came by and took us to another huge pit.

We were told that this area had not been quarried since 1987, and the floor of the pit was covered with echinoids, so many that we were actually walking on them in places, many of them sitting up on little limestone pedestals. We were like two kids on an Easter egg hunt for the next couple hours. Farley quickly found two small *Salenia* one on top of the other. I filled a 5 gallon bucket ¼ full with echinoids, mostly *P. cubensis*, a couple crushed *Hardouinia* specimens, and a portion of a large cidarid which would have exceeded 2 inches diameter in life. In a few cases we were able to lift associations of *Phyllobrissus* in slabs. Just before our escort came to lead us out I extracted a large pycnodont tooth from the shell hash covering a boulder, only to have Farley snap it in half upon inspection. Whether deliberate or subconscious, I'm sure he felt retribution for the damage I've done to his fossils in the field over the years.



FIGS 31-36: From the Anacacho formation two *Salenia hondoensis*? echinoids middle left found by Katz, remainder *Phyllobrissus cubensis* echinoids found by Woehr (Site 84). At times I find crushed but intact echinoids interesting.

FIGS 37-41: More from the Anacacho formation including partial large cidarid echinoid top left, unidentified bryozoan top right, crushed *Faujesia* echinoid middle, pycnodont tooth below (Site 84)

We then finished up at the Corsicana construction site that has been so good to me in the past. The place needs a flood to fully refresh, but Farley landed his first *Dakoticancer australis* crab early in the game. I offered to prep this

specimen for him. It lies flat on its back with several knuckles and possibly a claw intact. I found one crab, but it was exploded and questionably recoverable. A little super glue and scribe work brought it to full glory. In addition I got 10 or 12 *Hemiaster bexari* echinoids plus a pile of gastropods.

With good collecting we ignored the cold, but it was nice to get home and not have a long drive home for once.

FIGS 42-43: From the Corsicana fm an exceptional *Dakoticancer australis* specimen found by Katz shown from same angle before and after air scribe prep by Woehr (Site 248)

FIGS 44-45: Two more views of same specimen, the first seen by Woehr with both claws intact

FIG 46: Corsicana *Dakoticancer australis* carapace and cheliped (claw leg) found by Woehr (Site 248)

FIGS 47-48: Corsicana echinoids *Hemiaster bexari* above, gastropods *Gyrodes* sp.*, Turritella vertebroides, Anchura* sp., *Pyropsis* sp. below (Woehr, Site 248)

February 19, 2006

At 6 a.m. Monday morning I didn't think too much of the thin glaze of ice on my windshield, but once on the highway the gravity of the situation set in. One of San Antonio's rare freezes was upon us, and the wrecks littered I-10. I slowed down to about 55 MPH but began to lose it on an overpass just 3 or 4 miles from my house. With gentle counter steering I was back in control, moving along a little bit slower and hopefully smarter. Over the next 30 slow

miles I must have seen 25 wrecks ranging from SUVs balanced precariously on guardrails to station wagons upside down in the median to full size trucks that had jumped the guardrails and rolled down embankments, coming to rest upside down. Wreckers hauled mangled vehicles in both directions.

While crossing the Cibolo Creek bridge I spotted a wreck and a cop on the far side. Slowing to about 45 MPH I lost it and began fishtailing hard, zigzagging at least 3 or 4 times before regaining my heading and sloshing cranberry juice from driver window to passenger seat in the process. Good thing there were no vehicles nearby as I needed both lanes to correct myself.

Back in control, I remembered how I wrote off all these “dumb Texans” for “not knowing how to drive on a little ice”. With my big rear wheel drive F250 I soon figured out that I could run 65 MPH on the straight aways, but needed to slow to 30-35 MPH on bridges to maintain control.

My drive to Matagorda Co. stretched out by an extra hour, but I arrived alive and hooked up with friend, fossil collector, and Curator of Paleontology for the Brazosport Museum Brian Miles around 10 a.m. to canvass a local creek for Pleistocene vertebrate remains where he has done quite well in years past. Here he has claimed mammoth tusk sections, mammoth and mastodon teeth, a sloth tooth, and saber tooth cat fang and other treasures. The banks were so grown over by this point that exposure was more limited than in years past as were our finds.

3 hours of creek stomping did have its highlights though. We collected 3 or 4 nice fossil bison teeth, what may be a horse scapula, some turtle shell fragments, small pieces of mammoth enamel, and one obscure chunk of bony material which turned out to be a glyptodont scute (piece of the shell of a giant extinct armadillo like creature).

We had a pretty good time anyway. You never know what you’ll find unless you get out there. Brian is knowledgeable about fossils and trustworthy with sites, so I suspect we’ll end up exploring other sites this spring with good results.

Fortunately I didn’t have to run the ice gauntlet on the way home, and I kissed the ground when I got there!

FIGS 49-50: Pleistocene turtle fragments left, bison tooth right (Site 270)

FIGS 51-54: Pleistocene bison teeth above, unidentified scapula below (Site 270)

FIGS 55-58: Pleistocene glyptodont scute *Glossotherium floridanus* first three frames (found by Miles, donated to Woehr), Woehr and Miles lower right (Site 270)

February 25, 2006

Some days Ma Nature just kicks your teeth in, and last Saturday was one of those days. I left the house around 3 a.m. only to meet increasing rain north of Georgetown. By daylight it was raining steadily, but I pressed on scouting a stretch mapped as Upper Cretaceous Neylandville and Nacatoch formations (69-70 MYA) in Navarro and Kaufman counties. With about 30 sites taken from old literature I was unable to find one huntable exposure by noon, so I considered other options.

I walked a half mile of the Trinity River only to find myself doggypaddling through a muddy quagmire which nearly sucked my knee high boots right off my legs. No Pleistocene material within sight. A run north to a popular and somewhat played out site in the Britton fm (90 MYA) north of Dallas was not made any easier by cold wind and driving rain. Donning rain gear I made the miserable walk. Seeing no fossils I simply collected 20 oval shaped red ironstone concretions for later scrutiny then chose to get out of the weather.

It was early and I was skunked, so I dragged my wet carcass down to the Dallas Museum of Natural History just to get a look at some fossils. They have some good material on display, but I felt they should show more. Still, I spent 20-30 minutes studying the Trinity Mammoth, taking note of skeletal morphology, finally and positively identifying some of mammoth bone fragments I've collected lately.

The next day Weston and I cracked all of our ironstone concretions with a hammer on the driveway, and I found some degree of redemption in claiming one decent crab carapace out of all those nodules. At least the day wasn't a complete wash.

FIG 59: Britton fm crab *Notopocorystes dichrous* (Site 74)

February 27, 2006: Last Call

Once again I seized a lunch hour to check out another local exposure within a couple miles of the office, this time a small road cut in the Eagle Ford limestone exposing thinly bedded layers of shell hash supplying a few shark teeth to those willing to look for them. In short I grabbed four teeth in a half hour including 2 *Ptychodus anonymus*, one *Carcharias* sp., and one tiny *Odontaspis* sp. I'm going to be hard pressed to find anything else near the office for a while. Anyway, I look forward to whatever March brings.

FIGS 60-61: Eagle Ford shark teeth *Ptychodus anonymus* (2) and *Carcharias* sp. left, *Odontaspis* sp.? right (Site 103)