

FOSSIL COLLECTING REPORT

Daniel A. Woehr and Friends and Family

May 2012

May 5, 2012: Glen Rose Echinoid Agenda

Rain fell hard in San Antonio and surrounding counties and I had a little time on my hands, so I opted to poke around in the Glen Rose Formation (108 MYA) for about 45 minutes one afternoon. All the while I could feel summer nipping at my heels, but the slow and steady stream of finds kept me focused for the duration of my abbreviated excursion. Net result was a decent clutch of echinoids *Loriolia rosana*.



FIGS 1-3: Upper Glen Rose Formation echinoids *Loriolla rosanathis* and next 2 pages (Site 550)







FIGS 4-5: Upper Glen Rose Formation ammonite fragment possibly *Paraengonoceras* this page, unidentified huge gastropod next page (Site 550)



May 10, 2012: After Work Echinoid Elixir

More rain, more opportunity. This time I teamed up with my friend Brian Evans for an hour long look at another Glen Rose exposure close enough to home to let me keep my 8 o'clock date with lovely Ms. Brett. Brian and I converged on the site under threatening skies and commenced our low and slow crawl on separate sections of this exposure in hopes of encountering diminutively sized echinoids and perhaps other marine oddities, if present this time.

In short the trip was fun but not terribly successful. I took 5 *Salenia* echinoids and a small crab claw with both fingers intact then left a little early; Brian stuck around until the rain rolled in and left with 9. Good times on a week night.



FIG 6: Glen Rose Formation echinoids *Hyposalenia phillipsae* bottom 2 and middle left, *Leptosalenia texana?* middle right, *Hyposalenia* sp. top left, isolated *Balanocidaris* plate (Site 161)



FIG 7: Unidentified Glen Rose Formation crab claw left, ghost shrimp(?) claws middle and left (Site 161)



FIG 8: Glen Rose Formation crab crinoids columnals *Isocrinus annulatus*(Site 161)

May 12, 2012: Corsicana Family Values

Bands of heavy rain fell during the week, so Ms. Brett and young Weston joined me for continued study of the Corsicana Formation (68 MYA). Ms. Brett was holding out for her first *Dakoticancer australis* crab carapace from the site, but alas, it was not to be on this day. Still, she, Weston and I found 50-60 echinoids that morning dominated by perfect examples of *Hemiaster bexari*.



FIGS 9-14: Corsicana Formation echinoids *Hemister bexarthis* and next 5 pages (Site 349)











Crushed but cool



FIGS 15-16: Corsicana Formation echinoid *Diplodetus americanus* this and next page (Site 349)





FIGS 17-20: Corsicana Formation echinoids *Schizaster variabilis* this and next 3 pages (Site 349)







The site underperformed expectations after 5 inches of rain, so Weston and Brett left a little early, leaving me as "clean up crew". Systematic grid searching added a few nice things to the catch bag, but nothing new or remarkable. I took 4 crab carapaces, one which should prep nicely and 3 with major flaws. Still, it was a great morning to be out with family finding lithified vestiges of yore...



FIGS 21-28: Corsicana Formation muffin crabs *Dakoticancer australis* in various stages of appropriation this and next 7 pages (Site 349)

















FIG 29: Corsicana Formation shark teeth *Squalicorax pristodontus* top right, unidentified center, but possibly *Cretolamna maroccana*, shark vertebra on quarter, fish vertebra lower left (Site 349)



FIG 30: Corsicana Formation nautiloid *Eutrephoceras* sp. (Site 349)



FIG 30: Corsicana Formation bivalve *Lima guadalupensis* this and next page (Site 349)





FIGS 31-32: Corsicana Formation bivalve *Neocardium* sp. this and next page (Site 349)





FIG 33: Corsicana Formation bivalves - two *Plicatula mullicaensis* below, *Liopistha protexta* center, four scallops *Neithea bexarensis*, two oysters *Ostrea* sp top (Site 349)



FIG 34: Corsicana Formation fossils – five worm tubes *Hamulus onyx* above, echinoid *Hemiaster bexari* lower left, oyster *Pycnodonte mutabilis* second from lower right, remaining bivalve and gastropod unidentified (Site 349)



FIG 35: Corsicana Formation fossils - oyster *Pycnodonte mutabilis* top left, remaining bivalves in top row unidentified, gastropod *Cypraea* sp. right of quarter, *Nautilus* sp. lower right, *Bellifusus* sp. low right of the quarter, gastropod unidentified (Site 349)



FIG 36: Unidentified Corsicana Formation gastropods (Site 349)



FIG 37: Corsicana Formation gastropods *Gyrodes petrosus* (Site 349)



FIGS 38-40: Corsicana Formation gastropod *Volutomorpha* sp. this and next 2 pages (Site 349)







FIGS 41-42: Corsicana Formation bryozoan *Dysnoetopora celleporoides* this page, eroded trace fossil of encrusting sponge *Entobia cretacea* next page (Site 349)





FIG 43: Corsicana Formation bivalve *Lima acutilineata* left, gastropod *Anchura* sp. right (Site 348)

May 23, 2012: Collecting Mid Commute

I stopped one day on the way home from work after another rain shower to survey a small exposure of Austin Chalk (85 MYA) where I've grabbed some interesting marine fossils over the years. This day was nothing spectacular, but well worth the 10 minutes spent. For my efforts I got a complete *Hemiaster texanus*(?) echinoid and a few regular echinoid spines, the latter still unidentified. Good times!



FIG 44: Austin Chalk echinoid *Hemiaster texanus* (?) (Site 16)

May 28, 2012: Penance in the Pleistocene

With opportunity to collect, I opted to exchange domestic responsibilities for a dose of adventure. A solo gig on the water rose to the forefront as my venue of choice, with any luck involving encounters with Pleistocene megafauna. Having recently replaced the fuel pump in my truck after an untimely break down, I guess this trip would test my workmanship!

Landing my canoe on the first gravel bar, my enthusiasm ran strong as the first two *Equus* horse molars, one upper and one lower, hit the bottom of my catch bag. I found a few more interesting bone scraps and found an interesting but not very old Old Quaker whiskey bottle, but little else. The site had no signs of disturbance, but the finds were nothing as expected...perhaps the site is waning in productivity.



FIGS 45-47: Pleistocene *Equus* horse teeth this and next 2 pages (Site 373)







FIGS 48-50: Unidentified Pleistocene proximal radius, possibly horse, this and next 2 pages (Site 373)







FIGS 51-53: Unidentified Pleistocene bone this and next 2 pages (Site 373)







FIGS 54-55: Pleistocene *Bison* metapodial left, unidentified distal radius right, whiskey bottle next page (Site 373)



Moving on, I landed on another bar that in the past has sporadically given up some decent finds, and this time it let go of a few more. Near the head of the bar I found a fossil deer jaw *Odocoileus virginianus* with a full set of blue teeth...very cool! A horse astragalus (ankle bone) presented itself at water's edge and found a welcome place in my bag.



FIGS 56-57: Pleistocene *Equus* horse astagulus this and next page (Site 210)





FIGS 58-60: Pleistocene *Odocoileus* deer mandible above, Holocene *Bison* mandible below and next page (Site 210)



Modified by ancient man? Spear points found by the author at the same site before...

Then I found a bovid jaw that was sub fossil...ordinarily I would have assigned it as cow and chucked it, but apparent hack marks on the jaw prompted me to keep it. To me it appears to possibly be a *Bison* jaw modified by ancient man, but I'll let other more seasoned experts comment on that. $\frac{3}{4}$ of a green *Paleolama* tooth rounded out my take, adding some variety to the light bag I hauled off this bar.



FIGS 61-64: Pleistocene *Paleolama(?)* tooth this and next 3 pages (Site 210)









FIGS 65-67: Unidentified deer sized Pleistocene vertebra this and next page (Site 210)







FIG 68: Unidentified Pleistocene humerus top right, unidentified bones below and left (Site 210)



FIG 69: Unidentified Pleistocene turtle shell fragments (Site 210)

Pressing on, I ran into some boat engine trouble, never a good time on the water. But one must be self-reliant and plan safely. Carburetor issues so it seemed....I opted to paddle a way and get some exercise, and mess with the engine at home.

The next bar only gave up a few things, one being the highlight of the day. First I grabbed a palm-sized section of mammoth tusk *Mammuthus columbi*...I never turn up my proboscis at ivory! Then the top of a cervical vertebra presented itself in the sand...Whoa! This thing looked big! Once yanked from the ground it looked even bigger and more impressive, one of my biggest non-proboscidean verts to date, and well mineralized.



FIGS 70-71: Pleistocene *mammoth* tusk bark *Mammuthus columbi* this and next page (Site 137)



Later scrutiny by Dr. Richard Hulbert in FL identified it as a cervical vertebra from one of Texas' largest camels, *Camelops testernus*. This was a great find in its own right, but the deep scrape marks on one side are of particular interest. The jury is out whether these are predator or scavenger tooth marks, or butcher marks made by ancient man...no matter what the origin, this piece looks great in my collection.



FIGS 72-79: Pleistocene camel cervical vertebra *Camelops testernus* this and next 7 pages (Site 137)















Butcher marks or tooth marks???

Kicking a dark object several inches underwater, I sensed its heft, hoisted it aloft, and pronounced it a horse thoracic vertebra, another welcome find. Shoving off, I continued on to my final bar of the day.



FIGS 80-81: Possible Pleistocene horse thoracic vertebra this and next page (Site 137)



Apparently another site past prime, I was content to pick up a few scraps that held interest for me...a small deer antler base here...a small horse tooth there...maybe a couple turtle carapace pieces.



FIGS 82-84: Pleistocene deer antler base this page, horse tooth next 2 pages (Site 132)







FIGS 85-87: Pleistocene distal scapula left, horse calcaneum right, unidentified bone next 2 pages

(Site 132)







FIGS 88-89: Pleistocene tortoise carapace fragment *Hesperotestudo crassiscutata* this page, unidentified turtle fragments next page (Site 132)



I've had more successful days in the past, but I was happy with my finds, particularly the camel vert, and enjoyed the opportunity to spend a little solo cave man time in the wild backwaters of Texas....



FIGS 90-91: Corsicana Formation worm tube colony *Cycloserpula* sp. aff. *C. costata* (Hagenow) this and next page found by Justin Talutto (Site 349)





FIG 92: Found rattling around in the author's truck...Del Rio Formation pyritized nautiloid *Cymatoceras* sp. left, ammonite *Adkinsia* sp. right (Site 46)