

Fossil and Artifact Collecting Report

Daniel A. Woehr and Son and Friends
October, 2009

October 3, 2009: Rain is Good

Collectors of antiquities and farmers have one thing in common – we both like rain as it makes our job much easier and rewarding. Recent heavy rains across the eastern half of Texas put countless collecting venues in prime condition for those knowing exactly when and where to strike....that's where John Jackson and I entered the picture.

The pickup stopped roadside in dawn's early gloom was not terribly out of place, but the semi truck stopped a few hundred yards away in the middle of the road was. Its hazard lights were flashing and there was a stream of coolant on the road for ¼ mile behind it.....hmmmm.....the dead black heifer in the road soon explained it all. I'm glad the scene had our attention so we didn't become part of the carnage. Still down the road a huge column of white smoke rose steadily in the still morning air. A monster brushfire had the road closed, adding 10 miles to our drive. Twas an obscure start to the day.

Soon we deployed the light weight 2 man canoe and began miles of paddling through a network of bluffs and gravel bars recently scoured by flood waters. I had never personally been on this stretch of stream before and enjoyed the change of scenery. Early on we found ourselves sharing the bank with one of its serpentine denizens – a brave, thick, 3+ foot cottonmouth that lay at the water's edge with its head up in defiance as we glided within 5 feet for pictures, John at the camera, me on the ready with my paddle ready to deploy as a guillotine if required. In the end our little Mexican standoff transpired with no shots fired.



FIG 1: A water mocassin lies undaunted as our canoe passes within mere feet (Site 523)

One particular high bank was studded up high with burned midden rock protruding from the face. As I walked the slippery slope I saw more burned rock and numerous flint chips, all evidence of an ancient campsite. I was fortunate to lay hands on a precision worked yellow Clear Fork tool, and later as I dropped back down to the canoe I picked up an old bison tooth associated with the site.



FIG 2: A Clear Fork woodworking tool and a bison molar associated with the same campsite (Site 523)

The rest of the run was unproductive from a collecting sense and brief showers prompted us to pull out and drop into another stream miles away. This waterway too had been recently scoured and was ripe for canvassing. Water levels were now low enough that the clear water trickled over submerged gravel bars in places, giving both dry and wet gravel patches high potential. We had to walk the boat across the shallows in some areas then paddle across the pools. This trip would have been impossible without the canoe.

John took to the water while I surveyed the dry gravel. Soon he called back to me excitedly that he had found a nice blade. Doubling back, I could see the black triangular form clearly from 15-20 feet away under 2-3 inches of water. Then a mere 8 feet away I made a find of my own – a nice 78 million year old mosasaur vertebra from the Ozan Formation, a rock unit with aerial outcrop extending from North Texas into South Central Texas.

We continued picking up 50-100 year old cork top bottles and laughing at some of the antiquated wording on them. Then on another gravel bar my eyes locked onto order amongst the disorder.....it was a very well preserved dorsal vertebra from the fish *Pachyrhizodus caninus* sitting prominently on the bar. This day wasn't turning out too badly.



FIGS 3-5: John Jackson leading the way along a familiar ephemeral waterway this page, a spectacular Friday blade he found there next 2 pages (Site 500)



2 views
Texas Archaic blade
3-3/4 inches





FIGS 6-10: Some of the author's better finds of the day from the Ozan Formation including a dorsal fish vertebra *Pachyrhizodus caninus* (round specimen) and a mosasaur vertebra (marine reptile), the latter found a few feet from John's blade, this and next 2 pages (Site 500)







FIGS 11-14: The author's old glass and porcelain finds this and next 2 pages (Site 500)





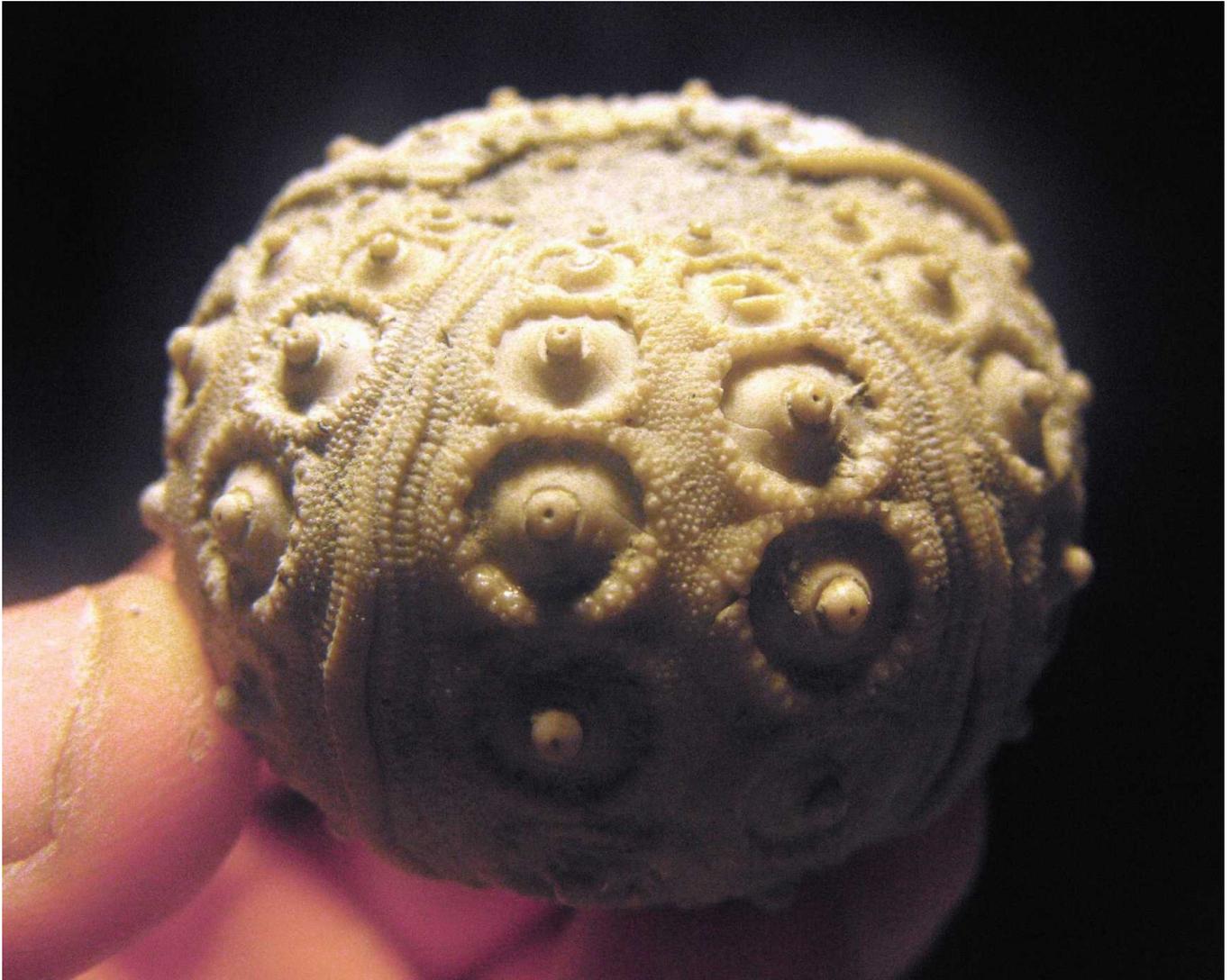
As John and I walked 6 feet apart across the shallow gravel, not being able to see our own feet due to the glare, but able to see each others' feet, John called out for me to pick up a bone next to my shoe. It appeared to be a claw from some antiquated Pleistocene beast, but later on some experts agreed that it was a pathological/arthritis bison or cow hoof core – bummer.

In fading light on my way home I dropped into an area stream channel solo with my trusty rechargeable lantern. It too had been washed “baby butt clean” by a recent rise and fall. My hour long study of the Georgetown Formation exposure produced more than expected: 4 *Holaster simplex* echinoids, one *Macraster*, and a big *Mortoniceras* ammonite that will require future extraction with heavy hand tools. (News Flash – Johnny has since saved my ammonite from the elements and held it for me, a very nice 12 inch, fat Mort).....(Note 2: The Georgetown Formation is sort of a condensed section comprised of the Washita formations of North Texas, namely Duck Creek through Mainstreet, which are mapped together for convenience through Central and South Texas)

While I was leaving I spotted a curious blob in the beam of my flashlight sitting atop the limestone bench. Taking it into my hand I couldn't believe what I saw.....it was a complete and extremely rare regular cidarid echinoid of the genus *Phyllacanthus* or *Stereocidaris*, my first and possibly only one ever. What a way to end the evening.



FIG 15: *Holaster simplex* echinoid (Site 173)



FIGS 16-20: Unidentified cidarid echinoid (*Stereocidaris?* *Phyllacanthus?*) this and next 4 pages (Site 173). Hopefully there are enough diagnostic details shown to allow experts to key out this specimen.











FIGS 21-28: 20 LB, 12 inch *Mortoniceras* ammonite found by the author at night in the Georgetown Formation, later dug out of the exposure by good friend John Jackson, then prepared by the author. This specimen deserved the next 6 pages of images. Pyrite dusted sutures most easily seen first hand (Site 173)













October 4, 2009: Solo Giggling South Texas Echinoids

My alarm went off and I continued to lay in bed in the pre dawn darkness. My motivation was intact, however raging thunderstorms outside my window boded well for my collecting prospects that day. My plan was aggressive; I was to survey 8 echinoid sites spanning a 300 mile round trip...and in the end I didn't even need to use my flashlight.

Site1: Glen Rose Formation (108 MYA) – freshly rained on, well off the radar of mainstream collectors. Here I crawled around for a half hour and bagged perhaps 15 echinoids *Salenia texana* plus several *Heteraster obliquatus* and *Palhemiaster comanchei* in addition to my best find, a nickel sized perfect echinoid *Tetragramma texanum*.



FIGS 29-32: Glen Rose Formation echinoids *Tetragramma texanum* top left, *Salenia* sp. top right, *Salenia texana* below, *Heteraster obliquatus* top next page, *Palhemiasaster comanchei* middle of next page (Site 445)



Site 2: Also Glen Rose, this site had me doggy paddling through pig slop on hands and knees for micro echinoids, but it was quite productive. In roughly an hour I took about 12-15 micro *Salenia*, one *Goniopygus texanus*, and a *Globator hancockensis*, all splendid echinoid finds. The pycnodont (fish) mouth plate, *Isocrinus annulatus* crinoid stalks and *Paleopagurus banderensis* hermit crab claws rounded out my finds.



FIGS 33-34: Glen Rose Formation echinoids *Goniopygus texanus* left, *Globator hancockensis* right (Site 161)



FIGS 35-37: Glen Rose Formation echinoid *Salenia* sp. this and next 2 pages (Site 161)







FIGS 38-39: Glen Rose Formation echinoids *Salenia* sp. above; pycnodont (fish) teeth, crab claw *Paleopagurus banderensis*, crinoid stems *Isocrinus annulatus*, and echinoid spines below (Site 161)

Site 3: Still in the Glen Rose, this road cut presents a soft marl layer that with every rain erodes out echinoids *Loriolia rosana*, some very well preserved. In 20 minutes I took a handful of specimens.



FIG 40: Glen Rose Formation echinoids *Loriolia rosana* (Site 249)

Site 4: When you are on fish, keep fishing as they say.....so one more stop in the Glen Rose was in order. These overgrown dumped piles from the *Salenia texana* zone gave up perhaps 10 good echinoids, mostly *S. texana* plus one decent *Coenholectypus planatus*. All worth the effort, but I'll try not to step in fire ants when not wearing socks next time.



FIGS 41-43: Glen Rose Formation echinoids *Coenholectypus planatus* top left, *Heteraster obliquatus* top right, *Salenia texana* below and next page (Site 357)



Site 5: After lunch I switched gears to the Walnut Formation, slightly younger at 105 MYA. As expected, 20 minutes at this small site produced a handful of echinoids *C. planatus*.



FIGS 44-45: Walnut Formation echinoids *Coenholectypus planatus* this and next page (Site 459)



Site 6: Nearby, also small, also Walnut. A quick look resulted in 8 or 10 more *C. planatus* as well heeled neighbors eyeballed the muddy guy in the road cut inside this gated community.



FIG 46: Walnut Formation echinoids *Coenholectypus planatus* (Site 494)

Site 7: Another double road cut in the Walnut Fm produced yet more *C. planatus* from the freshly washed gray marl as I chatted on the phone with a high school buddy.



FIGS 47-48: Walnut Formation echinoids *Coenholectypus planatus* above, *Loriolia* sp. and possibly *Phymosoma texanum* next page (Site 455)



Site 8: Another road cut in the Walnut marl gave up a few more *C. planatus* plus some bonus *Loriolia* and a *Phymosoma texanum* in fading light. Not as much rain had fallen here, hence the reduced bag....but I'm not about to complain as the day's exploits had produced 100+/- perfect echinoid specimens. I've had some of these sites on my mind for some time....just waiting for rain.....now I can concentrate on other collecting venues for a while.



FIGS 49-50: Walnut Formation echinoids *Coenholectypus planatus* above, *Loriolia* sp. and *Phymosoma texanum* next page (Site 458)



October 11, 2009: Corroborating in the Corsicana

Young Weston and I caught the early service at church and then bummed around the house waiting for the drizzle to stop. It never did, so we packed up the BB gun, donned rain suits, and headed for the Corsicana Formation (68 MYA) that we've surveyed time and again since he was a little boy. In fact, this very site is the first spot I ever took him when he was just 4. In his young life the place is probably considered a permanent fixture, however I know better, hence our presence there after 3.5 inches of hard rain in the previous week.

We actually hit 3 mini sites in the same area, the first one a bit more remote with lots of illegal dumping evident. Weston was content to blast bottle after bottle while I scoured the ground for fossils. Our short work detail at that site produced just a few *Hemiaster bexari* echinoids and one rough crab carapace *Dakoticancer australis*.



FIG 51: Corsicana Formation bivalves, gastropods, and echinoids *Hemiaster bexari* (Site 248)

This took us to site 2, a couple of freshly washed hillside cuts. Again no spectacular finds, but I did pick up a couple *H. bexari* and 2 or 3 crab carapaces *D. australis* in close proximity. Rain maximizes contrast between the fossils and the surrounding matrix, but unfortunately the soft, wet marl often means crabs broken in the ground due to the shrink/swell characteristics when the marl dries and rewets. I try to combat the crumbly aftermath by extracting the specimen in the biggest hunk of matrix possible and then letting it dry in my garage before attacking it with my air scribe.

And now the main event. Fortunately my new band of competitors had not yet reached the site so Weston and I had free reign to speed bag all the newly revealed treasures. I urged the boy not to track up the best zones before they were looked at hard by one of us – there was plenty of other real estate to trod over with the BB gun.

The ground was so sloppy that Weston begged to be allowed to remove his shoes which felt like “high heels”. My knee pads each picked up their own 10 pounds of quagmire and gumbo however I pressed on and ended up with 2-3 dozen *H. bexari*, 2 or 3 echinoids *Plesiaster americanus*, and at least a half dozen more crab carapaces *D. australis*.



FIGS 52-55: Corsicana Formation crabs *Dakoticancer australis* above, echinoids *Proraster dalli*, *Linthia variabilis*, and *Plesiaster americanus* below, next page echinoids *Hemiaster bexari* followed by various gastropods and one nautiloid *Eutrephoceras* sp. (Site 349)



We capped the day off with some serious muddin' in the big diesel truck, rooster tailing and fishtailing in the mud until Weston was belly laughing and the sides of the truck, even the windshield, were redecorated in a lovely shade

of pig slop. The drizzle resumed. It was a lazy evening. It seemed only fitting that I lay on the couch and watch all the hippies mud sliding around in a Woodstock documentary on VH1.

October 14, 2009: A Roadside Stop

No long story here.....I stopped at a road cut in the Austin Chalk (85 MYA) on the way home from work and immediately scored one echinoid *Hemiaster texanus*. My fix for the day taken care of, I was soon on my way to the house.



FIGS 56-57: Two views of Austin Chalk echinoid *Hemiaster texanus* (Site 16)



October 15, 2009: A Cursory Canvassing of the Georgetown Gulley

OK I guess I didn't exactly satiate my mid week collecting urge the day before, so I stopped in a ditch incising the contact of the Del Rio formation (98 MYA) and the sparsely exposed (in Bexar County at least) Georgetown formation, Mainstreet member. This contact zone contains a number of distinctive fossils allowing easy zonation. I took home a 3 whorl *Plesioturrillites brazoensis* ammonite, a 2.25 inch diameter echinoid *Coenholectypus* sp., and half a planispiral ammonite (either *Graysonites* or some variant of *Mortoniceras*) and left a battered *Paracymatoceras* nautiloid, lots of brachiopods *Kingena wacoensis*, *Neithea* bivalves, and *Ilymatogryra arietina* oysters. The site was largely flooded and I'll be back for more goodies once the place dries out.



FIGS 58-60: Spiral heteromorphic ammonite *Plesioturritites brazoensis* and echinoid *Coenholectypus* sp. this and next 2 pages (Site 151)





October 17, 2009: "Give me mammoth teeth or give me death!"

Winds had picked up at the coast, making small boat fishing in the bays a no-go so an adaptation of the words of Patrick Henry served to prepare me for a 2 day solo onslaught on the Pleistocene this particular weekend. Daylight found me at my first put-in with my boat on my shoulders, stepping gingerly down to the water's edge. In short order all equipment was in order and with a pull of the ripcord I was once again in my element, savoring the sights of the Texas Outback less traveled, cautiously optimistic that my efforts would be rewarded with the scattered remains of beasts of yore.

A light fog rose off the water before me, soon revealing the first gravel bar of my one man mission. When the bow made purchase on squishy sand, I hurriedly stepped off of my trusty craft with youthful ambition and giddiness, forgetting all about the aches and pains of my aging joints. The cares of my work week dissipated like the fog over the water. It is these high river mileage, adventurous solo trips that I find most satisfying, one man versus the elements, or more fittingly one man working hand in hand with the elements, respecting the forces of nature, the end result being a safe day spent afield with hard physical work bringing a veritable boat load of Pleistocene booty.

Anyway the first bar provided instant pay dirt in the form of a splendidly preserved horse upper molar, a camel phalanx (toe bone), deer cervical vertebra, turtle shell fragments and a number of other anomalous bone chunks, the latter I accumulated throughout the weekend as giveaways for kids, the higher grade stuff further expanding my personal collection. I'm glad I tasted success early in the day as many miles of boat travel resulted in no more paleo goodies. A change of plans was in order.



FIG 61: Deer cervical vertebra *Odocoileus virginianus* top left, turtle plastron section bottom left, horse *Equus* sp. upper molar center, unidentified (deer?) distal tibia right (Site 526)

The run back to my vehicle behind me, I loaded up my gear, drove a while, and executed another distant put-in. This time my first and second bars brought good payout, most notably in the form of a mastodon vertebra and a camel incisor, the latter with spectacular honey colored enamel peeling away to reveal a sandstone filled root, proof seal of its 25,000 to 50,000 year old age. A worn glyptodont osteoderm added to the growing faunal suite.



FIG 62: Miscellaneous Pleistocene rib sections, distal humerus, worn *Glyptotherium* osteoderm, deer antler base, bird bone(?), and turtle shell fragments (Site 379)



FIGS 63-64: Two views of a mastodon(?) vertebra (Site 380)



FIGS 65-69: *Camelops* incisor this and next 3 pages (Site 380)









FIG 70: *Equus* horse calcaneum (ankle bone) and lower molar flanking two turtle shell fragments (Site 380)

A dud bar was followed by yet another productive one, with a few nice horse teeth coming to hand including a honey colored one encased in hard matrix, and at the water's edge a very nice, massive, and heavily mineralized bison vertebra studded with gnarly sandstone and gravel. I even found a piece of mammoth tooth enamel to make good on my battle cry for the weekend. The next bar was a dud, but the next couple provided nice horse teeth among other things.



FIGS 71-72: *Bison* sp. cervical vertebra (Site 426)



FIGS 73-74: *Bison* vert, unidentified distal humerus, distal horse metapodial, vertebral process above, horse lower molar in matrix, bison tooth, and soft shelled turtle *Apalone ferox* shell fragment below (Site 426)



FIGS 75-76: Soft shelled turtle *Apalone ferox* shell fragment left, turtle shell fragment center, mammoth tooth fragment right, unidentified ramus (jaw hinge) and *Equus* lower molar next page (Site 382)



With dusk on my heels I made it back to my put-in, stashed my boat in the weeds, and reclined in my vehicle for 8 restful hours – or so I had hoped. An odd sound outside my window awoke me in the thick of the night – in the end it turned out to be cows grazing right out my open window, an odd sound to wake up to. I snuggled back down in my blanket and faded away once again.....

...At 2:30 I awoke to the shine of a flashlight beam in my face, this time the friendly county sheriff and his deputy checking up on the nature of my business. They ran my license plates, drivers license, even the serial number on my pistol then bid me good night. It was hard to go back to sleep, so I got out all my fossils for a good hard look, threw down some more trail mix, and finally dozed off once again....

October 18, 2009: The Quest for Pleistocene Reliquiae Continued

I again awoke to light in my face, this time the sun high above the horizon at 8 a.m. Squirrels danced on the branches of the tree next to me as they gathered their breakfast, the orange glow of the morning sun accenting the tips of the teased hair on their pumping tails. A thick dew had settled over everything, making it hard to coax myself out of my blanket. My stiff back had me wondering if I had thrown it out by hoisting my boat overhead the day before, but soon it became apparent that I had just slept wrong and the pain went away. Sleeping outside in a fall cold front is not Mom's remedy for nursing a severe cold, but when nature beckons me on a fossil hunt, I answer in person and in force.

Trail mix. Banana. Gatorade. Sustenance intake behind me I was once again underway, this time with many, many miles of virgin bars to cover. Again first stop, first find, nice camel phalanx; this was a harbinger of good things to come. I hit perhaps 10 more gravel bars and accumulated quite a pile of high grade but mostly common material. Good pieces of turtle shell were reduced to possession as were a gem grade, outsized bison tooth, more horse, bison, and camel phalanges, various metapodial, humerus, and other limb bone halves, a real smorgasbord

of welcome finds. I rounded out this leg of the trip with an alligator osteoderm and a couple more mammoth tooth fragments for good measure.



FIGS 77-78: Llama/camel phalanx, *Bison* tooth, various turtle shell fragments above, unidentified limb bone below (Site 383)



FIGS 79-80: Turtle shell fragments, deer antler with rodent gnaw marks, alligator osteoderm, mammoth tooth fragment (Site 308)



FIG 81: Horse medial phalanx above (Site 307)



FIGS 82-84: Horse medial phalanx and unidentified distal humerus above (Site 305), *Bison* phalanx and molar, soft shelled turtle fragment, horse medial phalanx, and unidentified skull fragment below, close up of *Bison* molar next page (Site 306)





FIGS 85-86: Recent cow and fossil *Bison* phalanges above (Site 306), deer jaw, horse medial phalanx, unidentified partial atlas vertebra, and camel or *Bison* calcaneum below (Site 304)

It was a long run back to the vehicle, but these solo trips give me plenty of time to sort out the challenges, issues, and benefits of life without the distraction of other voices and ideas around me. Anyway, if there is one time during each trip I'd like to temporarily compromise on the solitude aspect, its when its time to haul all the gear back up the

terrace! I grunted my way through the down side of stream collecting and dropped into the driver's seat physically and mentally drained from hard work compounded by a chest cold.

A long drive to my final put-in provided just the succor I needed to do mobilize all my gear for one last hoorah. Trail mix. Vitamin water. A handful of Ibuprofen. Danny Boy was back in the game.

The first bar only gave up a few goodies, but they were both trip makers. The first thing I spied under 3 inches of flowing water was a screaming red back half of a camel mandible with 2 huge, pristine molars still intact and dotted with a few globs of hard sandstone matrix. This was hands down my find of the day. The next find, also from underwater, was a battered but diagnostic centrum of a mammoth vertebra, another find quite welcome in the Woehr Collection.



FIG 87: Unidentified rib fragment in matrix, pelvis fragment, and distal tibia (Site 414)



FIGS 88-93: Spectacular *Camelops* mandible this and next 4 pages (Site 414)











FIGS 94-95: Partial mammoth vertebral centrum this and next page (Site 414)



My final bar as the sun cast long shadows presented a few surprises. A nice Prohibition Era whiskey bottle made it into my boat, as did an odd looking, densely mineralized vertebra the likes of which I've never seen (Glyptodont?). Finally some small white globs 20 feet away caught my eye.....bear with me as this was quite a freak find....it was six deer upper teeth bonded by a bit of Pleistocene sandstone with no more bone remaining. It looked like a set of deer dentures!



FIGS 96-98: Obscure vertebra, possibly *Glyptotherium*, this and next 2 pages (Site 414)







FIGS 99-101: Deer upper dentary (Site 414)

All in all it had been a very successful although physically taxing trip. I take it all in stride though. "To the motivated go the spoils."

October 24, 2009: The Boy with “Echs-Ray Vision”

Saturday rolled around, I had the boy for the weekend, the streams were flooded but on the way down, and Johnny was itchin' to wet a canoe. Such are the makings of a field excursion. Our first stream was still ripping in the narrow portions, so much so that we had to get out and wade the boat out of the riffles, the icy water up to my thighs leaving me wondering what happened to the 106 degree days of recent.

Anyway, the rushing current had revealed many treasures for us this day. Our first find came almost immediately as we paddled up to a vertical bluff and I pulled a rough 10 inch *Mortonicer* ammonite from the gray, marly sediments of the Georgetown formation (102 MYA).

Continuing upstream we found a long, low, gently sloping limestone bench which gave up a 3 inch *Paracymatoceras* nautiloid when I stepped out of the boat, followed by a 7 inch *Mortonicer* in good condition which Weston and I gingerly beat out of the limestone. Pressing on John spotted a 15 inch *Eopachydiscus marcianus* ammonite eroding out of the bank, this fossil marking the Duck Creek member of the Georgetown formation (103 MYA). Unfortunately its condition made it good enough for a few pictures, but not worth the weight in the boat.

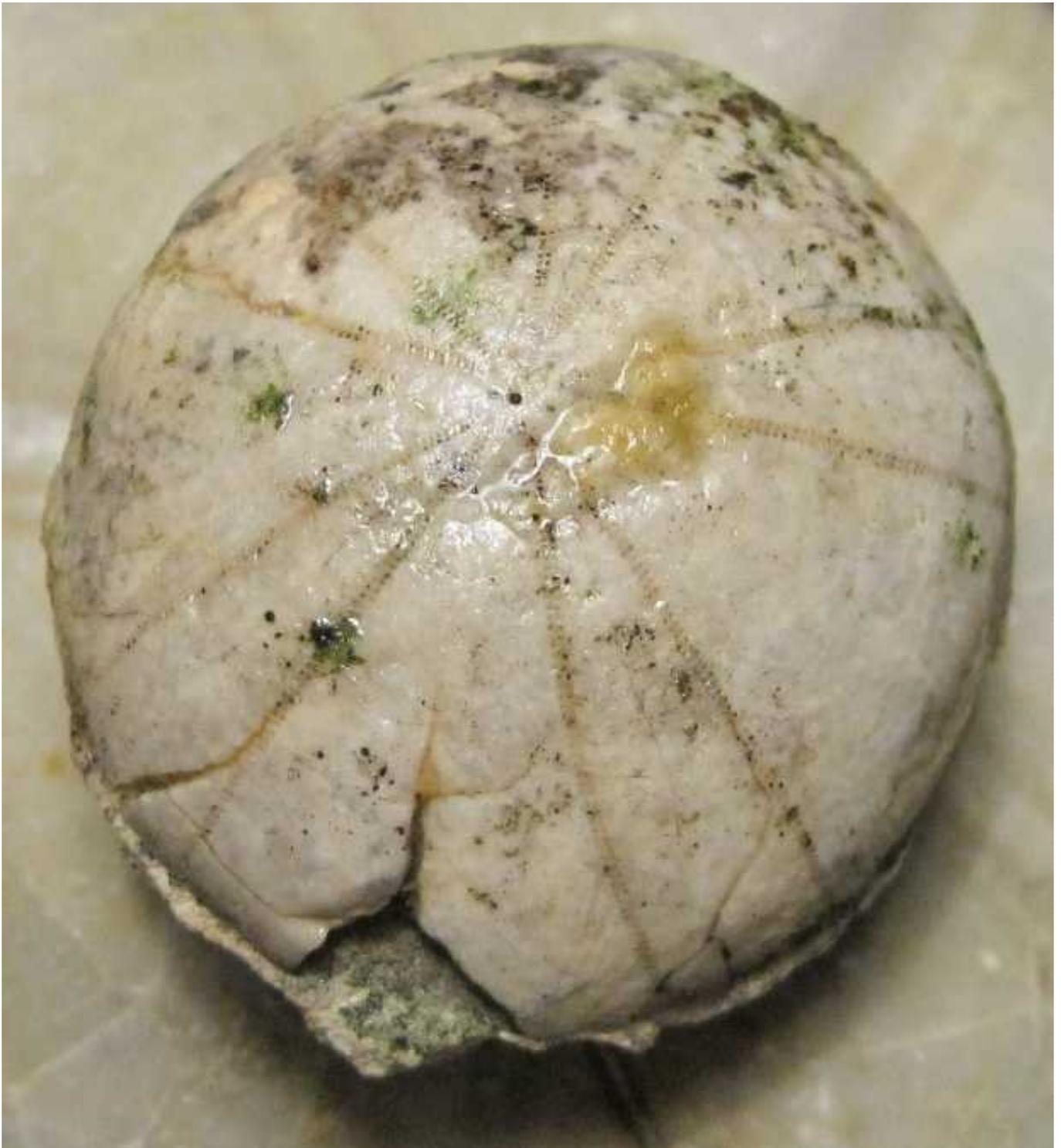


FIGS 102-105: The author helping young Weston ford a stream followed by John Jackson's *Eopachydiscus*, *Mortonicer*, *Macraster* and *Paracymatoceras* finds (translation – ammonites, echinoids, and nautiloids) from Site 219 this and next 3 pages









FIGS 106-107: Two views of John Jackson's echinoid *Globator whitneyae* (Site 219)





FIGS 108-109: Weston's take of *Mortoniceras* ammonites and *Macraster* echinoids above, the author's *Macraster* echinoid and *Lima* bivalve below (Site 219)



FIGS 110-112: The author's take of *Mortonicerias* ammonites and *Paracymatoceras* nautilus this page, unidentified oyster next page (Site 219)





FIGS 113-114: Weston Woehr and John Jackson attacking the current (Site 219)

Weston screamed in delight, his eyes wide open and his white knuckles tightly gripping the canoe as John deftly swung the craft around and slalomed through the standing waves of a narrow chute. We all hopped out on a big slumping bank exposing, based on a review of the fauna, probably the Fort Worth through Weno members of the

Georgetown fm. Down low seemed most productive, and here we all had a good time picking up *Paracymatoceras* nautiloids and *Mortoniceras* ammonites of varying size and condition.

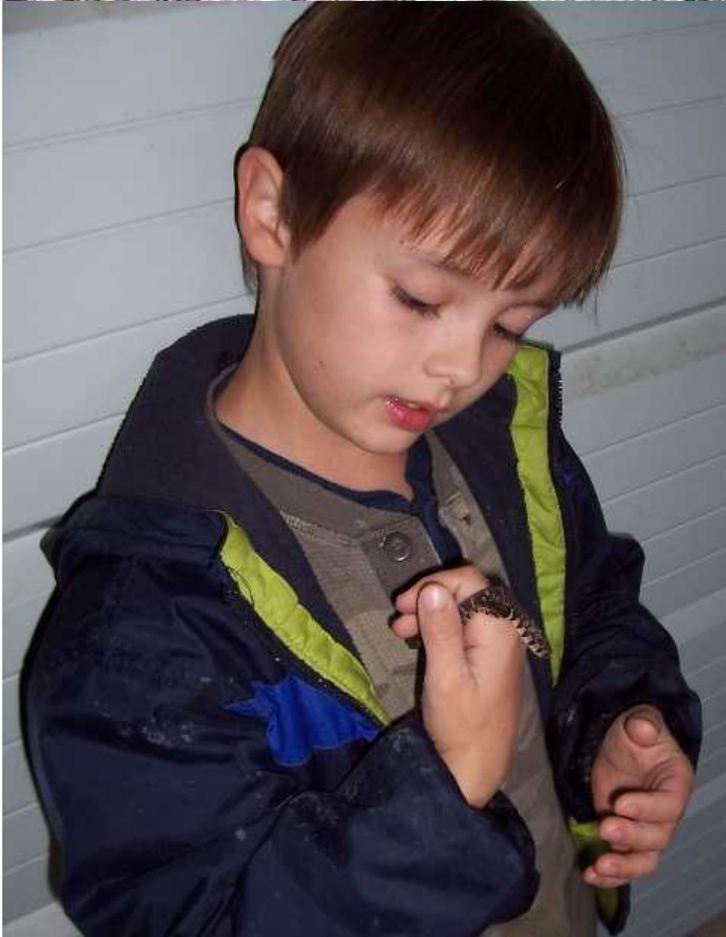
Just as I contemplated aloud the dearth of echinoids, John pointed one out at my feet, one of the better ones of the day, a scarce *Globator whitneyae*. Then we had a melee picking up fist sized *Macraster* echinoids, mostly water worn but still good fun. Plus abundant paydirt didn't hurt the kid's feelings as he beat a couple Morts out that he had spotted on the way upstream.

And when the fossils lost their luster for him the critters didn't. If catching snakes and frogs was not enough, he even got to see a raccoon swim across the stream then dart into the brush. John called out to me canoeing commands from the rear to keep us on track in swift water while the boy chattered on.



FIGS 115-119: Weston and a friendly little rat snake (Site 219)





We were soon well beyond our put-in and surveying a long, downstream dipping bank that appeared to expose the oyster choked Denton member of the Georgetown above underlain by the Fort Worth member below. We all stuck to the lower levels and were rewarded with occasional *Mortonicerias ammonites*.

We found a few rough *Macrasters* but nothing worth cleaning up. Weston seemed to have a singular objective: to score his first nice Mac "all by himself". Accordingly, he appropriated my hammer and began blind mining the bank, tumbling large chunks of marly limestone away as John and I chuckled to ourselves over the futility of his effort. "You have to dig for your *Macrasters*," he said just as a 10 pound chunk of matrix rolled past him, revealing a globose form impaled in the bank. "It's a *Macraster*!", he wailed. It took me a bit more digging to be sure, but in the

end the boy was right and he had indeed one-upped the old men. Indeed the young lad had "echs-ray vision" that day.

Circling back to our last exposed bank John took the lower levels by working the canoe against the water's edge while the boy and I worked the steep upper slope. Weston was not to be outdone, spotting not only his first *Holaster simplex* echinoid, but also taking a couple loose *Mortoniceras* ammonites plus what turned out to be a double in one small palm sized piece of matrix. His collection is growing and I've been marking all his finds hoping that he'll keep and appreciate them all more as he gets older.

I pocketed a couple small Morts and a small pyritized low form *Holaster* from the gray, unleached mid section of the exposure. Then after explaining to John that most of my echinoid finds tend to come from the lower levels he was searching, I looked up high and found a very nice albeit small *Macraster* several feet above in a zone where I've only found one echinoid in the past.



FIG 120: Weston's first decent *Macraster* (Site 218) and *Holaster simplex* (Site 173) echinoids



FIGS 121-122: *Mortoniceras* ammonite this page and *Rastellum carinatum* bivalve next page (Site 218)





FIGS 123-124: Weston's 3 nice *Mortonicer* ammonites including a double in matrix above, the author's two Morts and bivalve *Rastellum carinatum* below (Site 173)



FIG 125: The author's echinoids *Macraster* sp. left and pyritized *Holaster simplex* right (Site 173)

We pressed on to another stream, (after I went airborne in my car over an unmarked whoopy-do railroad crossing, but that's another story), one where Weston could pursue his true passion – old bottles. John and I like old bottles too, but our more patient approach often produces more subtle finds at this locality, namely spear points as well as Cretaceous mosasaur, shark and fish remains.

The water was high and we didn't find any points or bones, but young Weston scored 10 or 12 bottles to 100 years old, his enthusiasm making him forget all about the cold as he waded up to his thighs and raccooned up to his elbows in the frigid stream. I was pretty chilly in my t-shirt but kept up the pace without quarrel, the chance of a spear point always around the next corner.

At our take out point Weston proved that young eyes and small stature can at times be an advantage as he spotted a nice brown cork top bottle wedged under the bridge. Beaming with pride, this was the boy's capstone find of the day.



FIGS 126-127: Weston's old bottles (Site 500)

Back at Casa Jackson I spent a few minutes trimming an axis deer rump that I had brought along then dropped the cubed meat into fajita marinade while I diced some white onions and fired up the stove. With onions wafting a savory aroma throughout the house I dusted the meat with dry fajita seasoning and Montreal steak seasoning, then let it all sizzle together to a delightful concoction which we scooped into corn tortillas and sprinkled with cheddar cheese. Soon the 4 of us including John's wife Bonnie polished off the entire 3 LBS of meat, even notoriously picky Weston taking his share.

October 25, 2009: Impromptu Mission in the Georgetown Formation

After throwing back some of Bonnie's killer pancakes and dozing off again on the couch while watching Myth Busters it was time for the boy and me to head home. I hadn't planned on pushing Weston too hard this weekend, but talk of pyritized fossils between John and mesparked the boy's interest, and as we were loading up he asked to visit the site we spoke of.

Soon we were all crawling around a couple piles of blue-gray limestone and marl studded with innumerable pyritized invertebrate fossils. Weston soon pocketed a 4 inch Mort and several *Rastellum carinata* oysters.



FIG 128: Morning comes much too soon for some of us...perhaps hair can scare the fossils into submission?



FIGS 129-130: Weston Woehr and his *Mortonicerias* ammonite this and next page (Site 190)





FIGS 131-132: Weston Woehr's pyritized fossils – *Heteraster* echinoid above, *Neithea* scallops and *Rastellum carinatum* bivalve below (Site 190)



FIGS 133-136: The author's unidentified pyritized echinoid above (*Holaster* or *Globator*) followed by 3 frames of pyritized *Neithea* scallops and *Rastellum carinatum* bivalves (Site 190)

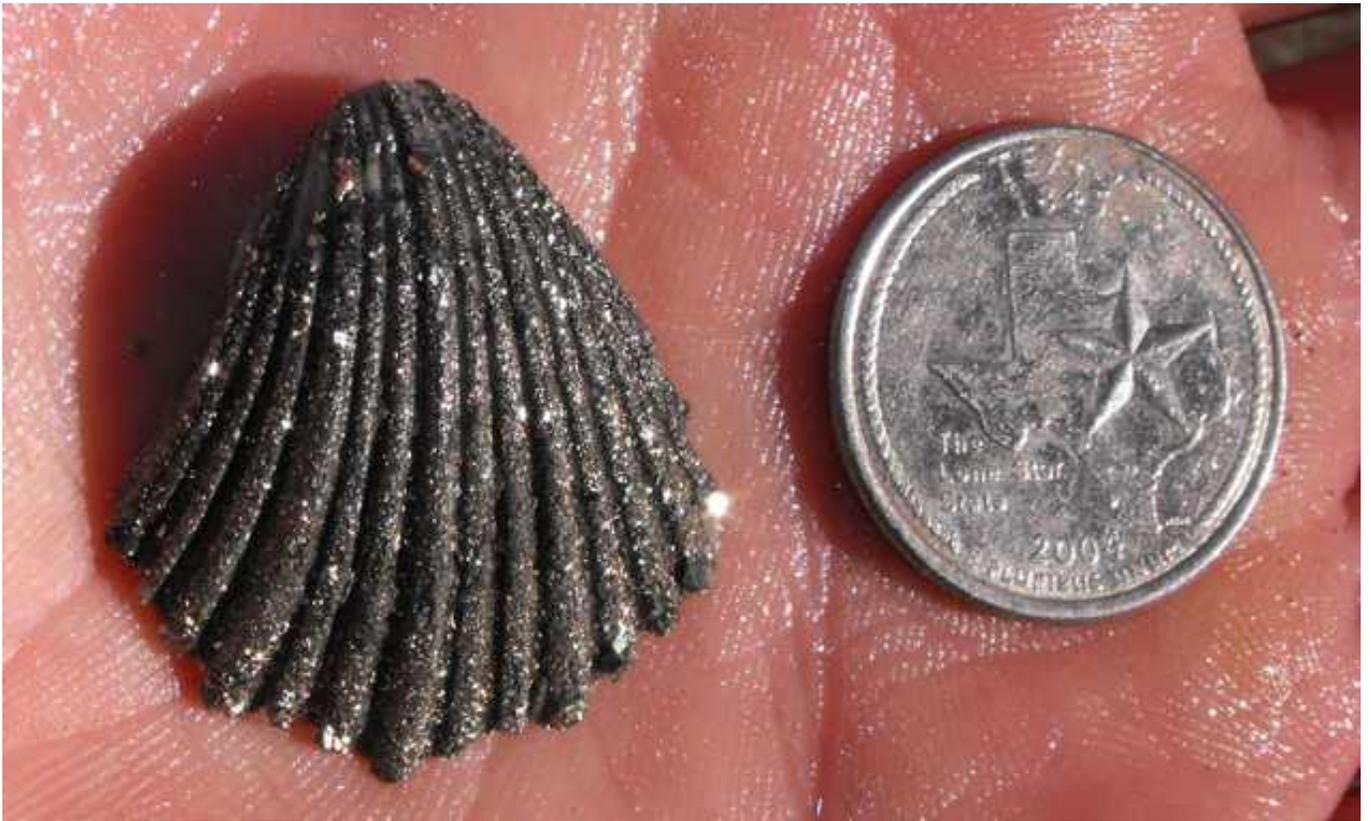


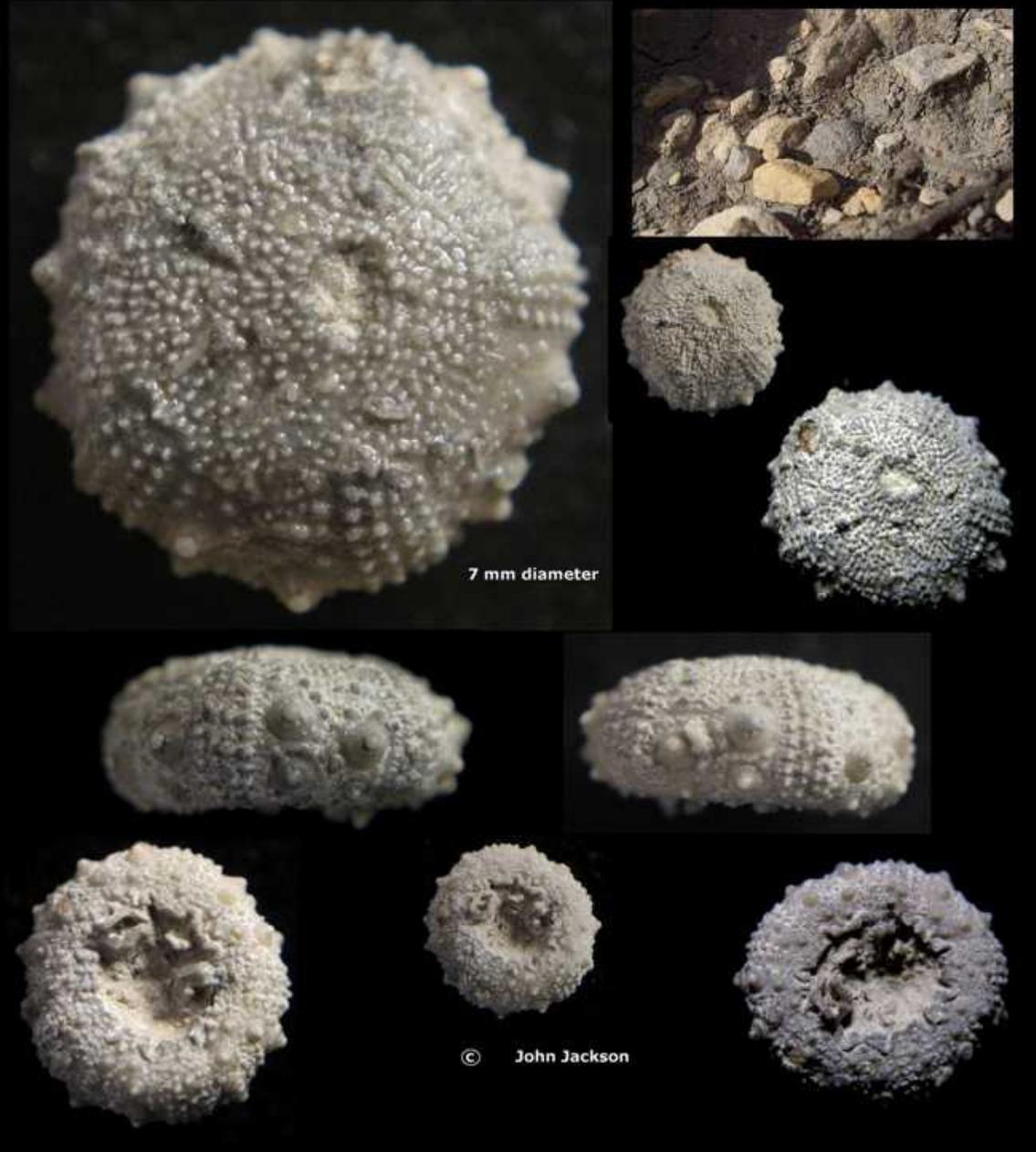


FIG 137: John Jackson's pyritized *Neithea* scallop, *Goniopygus budaensis* echinoid hiding in matrix, and two *Cretolamna* shark teeth (Site 190)

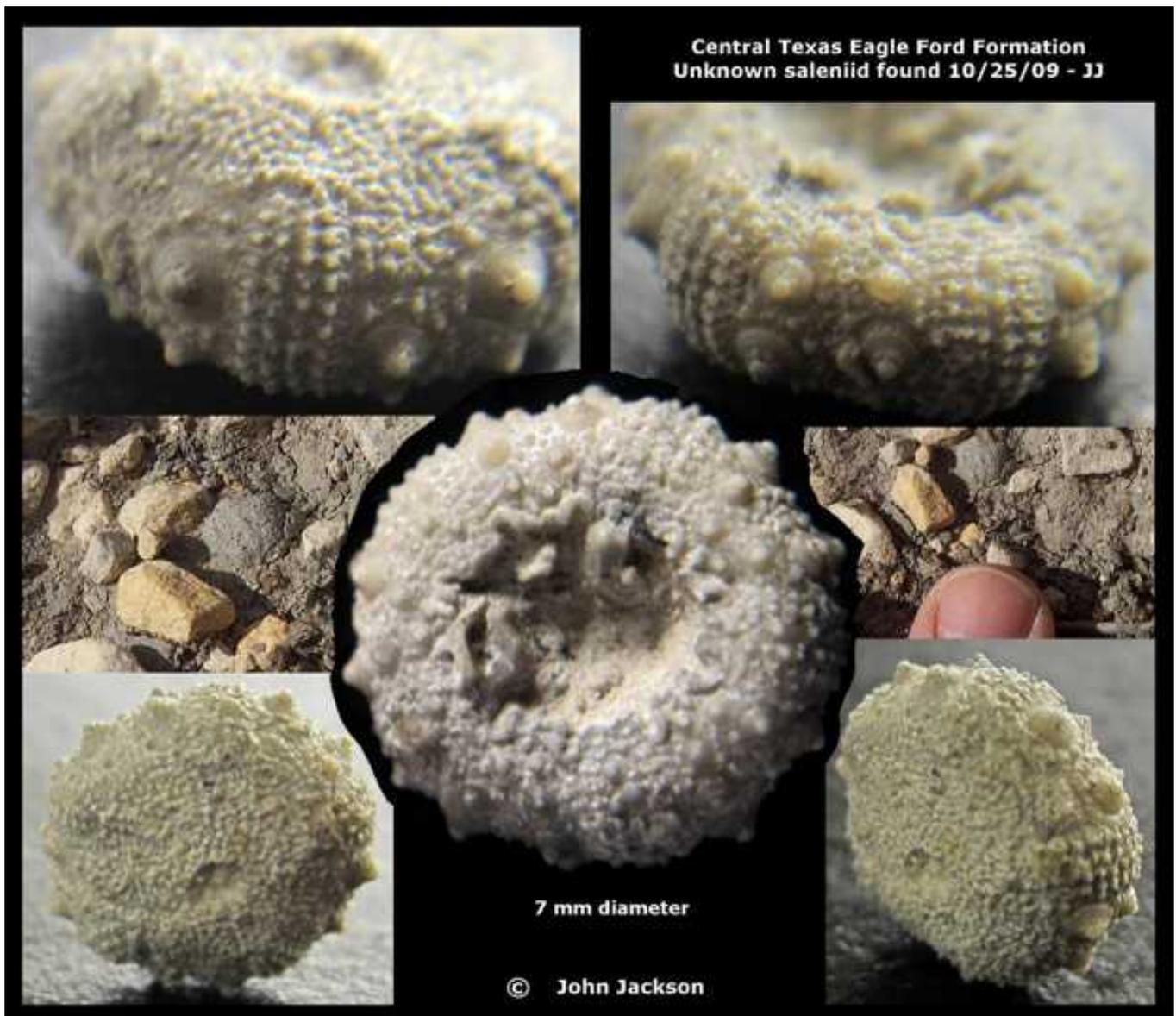
I grabbed another *Paracymatoceras* nautiloid, a handful of nice pyritized *Neithea* and one small pyritized echinoid, my prize for the morning.

Weston and I hit the road and grabbed some burgers and shakes while John stuck around, ultimately laying hands on a small, rare, and barely exposed *Goniopygus budaensis* echinoid and a couple shark teeth, proving once again that persistence pays big dividends in the field. Afterward John visited an Eagle Ford site (90 MYA) and laid hands on 2 more echinoids resembling *Bathysalenia*, something quite rare in TX.

Central Texas Eagle Ford Formation (late Turonian) - unknown species - Family Salieniidae
found October 25, 2009 - JJ - 4th specimen



FIGS 138-139: John Jackson's unidentified echinoid from the Eagle Ford Group, tentatively being called "*Bathysalenia* sp.", but expert opinions are welcome to opine (Site 502)



October 27, 2009: Spreading the Wealth

My friends Marge and Steve Noel who are docents with the Smithsonian Museum made a spur of the moment trip to San Antonio and wanted to find some fossils during their stay. Since a couple of my other buddies couldn't make it down over the weekend and more rain fell in the meantime, the Noels couldn't have timed their trip better. I gave them explicit directions to the Corsicana site, but the area was sloppy and basically unhuntable on their first attempt on Monday, muddy boots making them 6 inches taller.

On Tuesday after work I met them at the site and found it to be dried enough to walk and crawl with ease. At around 5:30 p.m. we all converged on a ditch and gave it 20-30 minutes of hard looking. We all found bivalves and gastropods, and before long we picked up a few *Hemiaster bexari* echinoids. Then I found a superb example of the crab *Dakotacancer australis* barely poking out of a nodule with legs hidden in an adjacent chunk of marl. I have so many of these crabs that I felt this one would be best appreciated in their collection.



FIGS 140-142: Marge and Steve Noel collecting the Corsicana Formation of South Texas this page, crabs *Dakoticancer australis* in situ next 2 frames (Site 349)







FIG 143: The author's best kept finds of the day including juvenile crab carapace *Dakoticancer australis* above, echinoids *Proraster dalli* lower left and *Linthia variabilis* lower right (Site 349)

With our minutes of daylight numbered we proceeded to the main part of the exposure and gave chase to long dead critters. The site was still sloppy in low spots, Steve came to Marge's rescue when deep mud sucked the shoe completely off her foot, leaving her balancing precipitously on one leg.

My knee pads served me well and afforded an up close perspective of the freshly washed exposure. It takes a little time to adjust eyes to what this site presents, but the Noels are quick studies and picked up a number of *Hemiaster bexari* echinoids and Steve even got a crab carapace. I found 2 or 3 more crabs which also went with them and the museum. Soon too dark to see the ground clearly, we regrouped at the vehicles and sized up our collective take.

In the end I gave them 25 *Hemiaster bexari* echinoids plus some of the cooler gastropods and bivalves I encountered, and I hung onto just 3 fossils this time: a well preserved juvenile *D. australis* crab carapace plus a good example of each of the species *Linthia variabilis* and *Proraster dalli*. It was a good time afield for us all even though our efforts were cut short by waning daylight. We threw back some cheeseburgers compliments of the Noels and sealed the deal on an enjoyable evening. With time on her hands the next day, I'm sure Marge did her best to pick up anything they may have missed before they get on their plane and head back to D.C. this afternoon.