

FOSSIL COLLECTING REPORT
March, 2007
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March 10, 2007: Pleistocene "Remedial Sweep"

With decreased river levels I opted for a second pass at the site where I found the mammoth tusk several weeks ago. I only found one bone on that bank, but it was a cool little skull the size of a quarter eroding out of a gully and filled with sand. It came from just above the level of the tusk and appears to be some sort of bird skull with the beak knocked off.



FIGS 1-6: Unidentified bird skull from Site 151 just above horizon where mammoth tusk was taken in February

Pressing on to some gravel bars I encountered a variety of finds. I picked up a couple horse teeth, a large distal bison humerus with a little matrix still on it, an alligator cheek bone *Alligator mississippiensis*, a couple vertebrae, a small limb bone encased in sand and pebble conglomerate, section of land tortoise shell *Geochelone* and a piece of black Pleistocene unmineralized wood covered in a red sandstone veneer.



FIGS 7-11: *Alligator mississippiensis* cheek bone above, mineralized distal *Bison* sp. humerus remaining images (Site 140)



FIGS 12-16: Unidentified bone in conglomerate matrix above, unidentified fish vertebra center, *Geochelone* sp. land tortoise carapace fragment below (Site 140)



FIGS 17-21: Horse teeth *Equus* sp. above, unidentified ribs center, unidentified mineralized proximal tibia below (Site 140)



FIGS 22-25: Unidentified bones above, carbonized wood encased in iron sand below (wood has since dried and disintegrated, Site 140)

Miles away I deployed my trusty 12 foot jon boat and motored miles to another network of gravel bars which in the past has given up a partial mastodon tooth, proximal sloth humerus, sloth tibia, horse jaw, human skull, etc. This visit had its highlights as well. My best find was the front half of a giant ground sloth mandible *Megalonyx jeffersonii*. The symphysis (point of the jaw) is intact but the 4 tooth sockets are unfortunately empty. Still this is a somewhat rare find and now I know where to go back looking for my first sloth tooth! In addition I picked up a sloth medial phalanx (knuckle bone) which I later found to mate perfectly with the 5 inch *M. jeffersonii* claw core I found a few months ago. These will display together well in living position. Among the usual horse teeth, rolled bones and vertebrae I picked up the centrum of another large vert that was too big for horse or bison but too small for mammoth. This too could be from a sloth.



FIGS 26-31: Several views of the front half of a mandible from the giant ground sloth *Megalonyx jeffersonii* (Site 373)



FIGS 32-38: One more view of sloth jaw, isolated phalanx, and same phalanx with claw core, all probably *M. jeffersonii* (claw Site 140 found 12/06, remainder Site 373 found 3/07)



FIGS 39-42: More views of *M. jeffersonii* phalanx with claw core, horse teeth *Equus* sp. below (Site 373)



FIGS 43-48: Unidentified limb bones above, partial mammoth, mastodon, or sloth limb bone center, unidentified pelvis socket and vertebrae below (Site 373)

Pressing on I picked up a couple more nice horse teeth plus a very nice *Terrapene carolina* (box turtle) plastron that will display nicely with the trap door from the same species found miles away at another site. I've been collecting enough in the last 3 years to finally be able to put together some composite displays of different species that look far more impressive than the isolated specimens themselves. Other than the sloth and turtle material mentioned I also have a mammoth hip joint, horse upper and lower jaws, and horse hoof and foot bones that fit together.



FIG 49: Turtle plastron *Terrapene* sp. and horse tooth *Equus* sp. (Site 389)

I got smart this time and showed up at the river with 300 feet of rope so that I could tie the boat to my truck and simply drive it up the bank. Sure beats abusing my poor old body. It was mid afternoon and I still had daylight available so I packed up and mobilized to another river.



FIG 50: Pleistocene or Holocene horse jaw *Equus* sp. (Site 383)

By 4:30 I was in the water bucking the current and admiring the clear depths, that is until I smacked a rock and broke a shear pin. Having been through this drill before I had the perfect tools for the job. I yanked the prop, changed the shear pin, and was back underway in 5 minutes. After running as far as I could still allowing light for the ride back to the truck I jumped out and surveyed a large gravel bar. Finds were sparse but I did manage an isolated horse tooth plus one side of a horse mandible with all teeth intact. I'm not sure of the age of this specimen as it is not fully mineralized but it is rather heavy, perhaps because it is full of silt. I don't see as many horse carcasses in the river as I do cows so I tend to treat equine material with a bit more credence than bovine regardless of mineralization. I made it back to the truck just as it got dark and again deployed the long rope to get all my gear back to high ground.

I had a good to average day overall, but perhaps I'm a bit spoiled now after finding a mammoth tusk. At this point it really takes a nice spear point or rare vertebrate find to make it a landmark occasion. A complete elephant, sloth, or tapir tooth would fit that description nicely.

March 17, 2007: Hemi Power

With the 6 inches of rain that fell in the San Antonio area in the previous week I felt it was necessary to invite a bunch of my paleo benefactors down this way to assist in a bountiful harvest. The only one who could make it was Adam Armstrong. He brought along his 8-10 year old son Gabriel and I brought 5 year old Weston along for a coordinated field assault on the Corsicana formation. Our main objective was crabs, specifically *Dakoticancer australis*. Another buddy and I had failed to find any whole carapaces a few weeks prior but huge rain makes huge changes in this easily eroding formation. We entered the site with high hopes.

The boys gravitated toward the mud puddles, lobbing rocks in them and running through them. My boy's shoes were soon sucked off his feet and he ran around barefoot for the better part of 7 hours and ended up looking like a little pig that had wallowed in a mud hole by day's end. He played so hard that he actually fell asleep in a ditch while they were playing. He had a blast and Gabriel was a good surrogate big brother for him, steering him clear of spiders and such that they encountered. Adam and I kept them within open sight at all times but basically let them run wild as boys need to at times.



FIGS 51-52: Big day for Gabriel Armstrong (with hammer) and Weston Woehr (note muddy bare feet), Weston's shoe sucking "quick mud" right (Sites 248 and 348)

Adam was first to score on a decent juvenile crab and then another. I on the other hand kept finding nodules with crab debris poking out but no obvious intact specimens. I threw them all in a 5 gallon bucket for future scrutiny. We each found perhaps a dozen echinoids most of which were *Hemiaster bexari*. I picked up half of a rare *Codiopsis stephensoni* echinoid but its condition was poor. Finally I sneaked up on a nice crab and caught it by surprise, its legs jutting out all over the place like a dropped pack of cigarettes. The thing was beginning to fall apart so I bagged all the associated matrix chunks which contained legs, a claw, etc. It is still a great specimen and quite large.



FIGS 53-54: Corsicana fm crabs *Dakoticancer australis* – Armstrong's above, Woehr's below in situ broken in half (Site 248)



FIGS 55-59: First 3 images prepped views of crab previously shown in situ followed by isolated claw and 2 more rough crab carapaces *D. australis* below, one with a fine specimen of bivalve *Lima* sp. on top (Site 248)



FIGS 60-65: Echinoids *Hemiaster bexari* above, isolated *H. bexari* and nautiloid *Eutrephoceras planoventer* second row, miscellaneous gastropods third row, unidentified bivalves, *Plicatula mullicaensis*, and *Trigonia castrovillensis* below (Site 248)

Having had a pretty good payout at the first site we moved to a second site nearby which had produced poorly overall in the last 6-8 months since I found the place. The site frustrated me for a long time since the Corsicana fill dirt was always piled higher and tracked over by heavy equipment before I got there. I had essentially left the area fallow for months. This day made it worth all the wait. 6 inches of rain made it clear that the fill dirt was moved from the right layer in the formation. Every 30 seconds somebody was picking up an echinoid and they were so easy to see we didn't even bother crawling. Sometimes 2 or 3 could be found within a one foot circle. This ridiculous pace went on for a couple hours as we criss crossed several acres of exposure. We hit some slow spots but each was followed by a profuse explosion of echinoids. My final body count was 101 echinoids from both sites combined; Adam got 68. Species included primarily *H. bexari* (hence the title "Hemi Power") and 1/3 *C. stephensoni* as mentioned plus *Plesiaster americanus*, *Proraster dalli*, *Linthia variabilis* and Adam's *Phyllobrissus*

cubensis, quite rare for this formation. Specimen quality was as good as quantity. Perhaps 75-90% of these echinoids are in impeccable condition.

As Adam and I walked along a few feet apart I noted a piece of broken crab leg on the ground then let out a "Whoa!!!" as I noticed a big crab carapace split in two pieces before me. It was a clean break and is now almost imperceptible after they were superglued back together. Aside from this we grabbed an assortment of fine gastropods, bivalves, and a couple of *Eutrephoceras planoverter* nautiloids before heading back to my house to drop off Weston. The collecting was so good that I lost track of time and came home to a fuming wife. I somehow managed to hose down my muddy boy and slip back out of the house without incident.



FIGS 66-67: A fine example of the crab *D. australis* – would you believe it was found broken cleanly in half? (Site 348)



FIGS 68-71: Rare echinoids top row, L-R including partial *Codiopsis stephensoni* , *Linthia variabilis*, *Plesiaster americanus*, and *Proraster dalli*, second row shows a bumper crop of *H. bexari*, third row shows *H. bexari* in situ and phosphatized straight ammonite *Baculites* sp. (Site 348)



FIGS 72-77: Nautiloid *E. planoventer* and bivalve *Neithea bexarensis* top row, bivalves including *N. bexarensis* and *Plicatula mullicaensis* second row, various gastropods below third row, gastropods *Turritella vertebroides* below (Site 348)