

FOSSIL COLLECTING REPORT
July, 2007
Daniel A. Woehr and Friends and Family

July 5, 2008: Windfall Finds in the Pleistocene

I've been spending more time with family over the last month so this day brought my first excursion in 4 weeks. It was well worth the wait and worth your time in reading on. Over the years I've identified a few consistently productive Pleistocene exposures and have opted to hit them alone each time. These are my "special places" where a constant stream of my favorite finds can divert my mind away from life's problems. I elected to pay some of these spots a visit on this particular day, and in just about every spot hit paydirt.

Pleistocene stream exposures in Texas routinely give up vertebrate material ranging from 10,000 to 1.8 million years old along with occasional Indian artifacts averaging from 2000 to 9000 years old. The first bank I visited gave up a few partial bones, including a distal horse metapodial. This was nothing spectacular, but things got better from there and ultimately crescendoed into unforeseen success by day's end. The next gravel bar produced some nice vertebrae and turtle material, but the first wonderful surprise was a perfect 2 ½ inch flint blade. Good points are generally the "find of the day" for me, but on this day it was just the starting point.



FIG 1: Distal horse metapodial (Site 157)



FIGS 2-3: Archaic knife (Site 140)



FIGS 4-6: Archaic knife above, deer antler, turtle shell fragment, unidentified distal scapula and other bones below (Site 140)

The next bar produced a host of horse material, various mineralized bone ends, various nice verts, a horse astragalus (ankle bone) a magnificent alligator osteoderm, and another point, this one just the top half but manufactured with excellent craftsmanship. Actually I saw it, kept walking, then spun around as my brain registered the image. I had almost missed it. 2 points in a day is a banner day for me. The next gravel bar didn't give up much as is usually the case, but I took some good horse and bison material so it was a worthwhile stop.



FIGS 7-8: Unidentified top half of point (Site 132)



FIG 9: *Alligator mississippiensis* osteoderm (Site 132)



FIGS 10-12: Partial deer skull and antler base this and next page followed by fragment of mammoth limb bone next page (Site 132)





FIGS 13-14: *Equus* and *Bison* ankle and foot bones along with turtle shell fragments along with unidentified vertebrae above, *Bison* astragalus below (Site 137)



FIGS 15-16: *Equus* tooth, *Bison* astragalus, and unidentified metapodial below (Site 137)

Around 10 a.m. I pulled out and headed for a different area miles away. By this point clouds began to blanket the sky. I ran several miles by boat and beached at a very special gravel bar which in the past has provided exquisite sloth remains, spear points, and other cherished goodies. This time would be no different, but I had to work fast as confused skies admitted occasional beams of sunlight through the forming clouds as distant rumbling rolled across the area. While canvassing the gravel my eyes locked on a curious chocolate brown object fringed with a white porcellanous material...my heart stopped as my brain caught up with my eyes...it was a large and 80% complete molar from an adult mastodon, and it was $\frac{3}{4}$ the size of a brick! I had the restraint to snap an in situ image before diving on it like a live grenade. I was in awe with the rich luster of the many enamel cusps as well as the good preservation of the root system. It is not a perfect tooth but if it is the best I ever find of the genus *Mammut americanum* I won't complain.



FIGS 17-20: Mastodon molar *Mammut americanum* this and next 2 pages (Site 373)





Pressing on along the water's edge I was randomly grabbing curiously shaped or colored objects from underwater, tossing most back. Again my brain was slow to engage, and to my elation found that I was holding a well preserved mastodon vertebra in my hand, and it was found just 15 yards from the mastodon tooth! Mastodons are somewhat rare in Texas, so there is a chance that these remains are associated. Another large bone found nearby could be a partial ilium (hip bone) or ramus (rear of mandible) from this or a similar beast.



FIGS 21-23: Mastodon vertebra *Mammot americanum* this and next 2 pages (Site 373)







FIGS 24-29: Ilium (hip bone) or ramus (rear of mandible) possibly from *Mammot americanum* this and next 3 pages followed by indeterminate bone fragment with calcitized interior (Site 373)







FIG 30: Unidentified proximal tibia left, worn camel phalanx right (Site 373)

Soon bolts began dropping all around me as a chilling wind hit my shirtless back. Back in the boat I went, and my last couple of miles were through a cool and refreshing downpour, but the lightning derailed the serenity of the moment. In record time my boat was back up the bank and in my truck and I was underway, cutting out a bit earlier than usual but with landmark finds to show for my effort.

With a little daylight to spare I set the cruise control until I arrived at a site in the Corsicana formation closer to home, a 68 million year old marine sequence. Rainfall in the days immediately prior was not sufficient to wash out significant finds, but I did manage one decent *Dakoticancer australis* crab carapace and a handful of *Hemiaster bexari* echinoids. A subsequent visit to an echinoid bearing exposure of the Walnut formation (105 million years old) gave up a few *Heterasters* and one squashed *Coenholectypus planatus*, but otherwise things were not terribly productive there.



FIGS 31-33: Crab carapace *Dakoticancer australis* in situ this page and prepped next page followed by weathered carapace in situ following page (Site 349)







FIGS 34-35: Corsicana fm echinoids *Hemiaster bexari* above (Site 349) and *Gyrodes* sp. gastropod and *H. bexari* echinoids below (Site 348)



FIGS 36-37: Walnut fm echinoid *Coenholectypus planatus* and *Trigonia* sp. bivalve mold (Site 454)

The variety and quality of finds made this one of my better collecting days on record. Mastodons were far outnumbered by mammoths in Pleistocene times in Texas, yet I still have not collected a good example of a mammoth tooth. Am I spoiled in still wanting one?

July 12, 2008: Paddling Through the Pleistocene

The wife was seeing one of her girly friends at the coast and Weston and I had a few hours to burn. When I asked him what he wanted to do he said "Can we go fossil hunting?" In record time we were on a local construction site in the Austin Chalk (80 MYA) poking around a few rockpiles surrounding a retention pond under construction. I lucked into a nice 5 inch *Cymatoceras* nautiloid while Weston was content to sink his feet into the mud and then scream for assistance. Climbing rock piles, throwing rocks into the mud just to see and hear the splat, and leaving muddy footprints were Weston's priorities, so I indulged him. But soon the heat was getting to him so I rehydrated him with Gatorade and pointed the big ugly truck back to the house.



FIGS 38-40: Austin Chalk nautiloid *Cymatoceras* sp. this and next 2 pages (Site 467)





I hosed him off in the front yard and then had him scrub up and change clothes just in time to be picked up by his great aunt for an overnigher. On cue my good friend and fellow fossil collector John Jackson showed up from the north with his light weight Kevlar canoe strapped to his roof. Losing no time we made our way to a forgotten stream

and deployed the boat, John at the bow and me at the stern. The first gravel bar proved modestly productive; I picked up the top half of a flint blade while John grabbed a worn horse molar out of my footprints.

We enjoyed observing the cypress trees and high banks with their cross bedded layers of gravel and sand spilling out. As we approached hidden carp we could see their powerful wakes as they bullied their way through the shallows while making their exodus. Big catfish could be seen in the deeper holes but we had a purposefully planned agenda that didn't include fish. The next hour of paddling, walking the boat through shallow spots, and surveying small gravel bars gave up nothing for us to take home.

An interesting eroding bank with gravel and jutting Eocene sandstone layers presented our next opportunity. I took the head and John took the tail of the bar. I picked up a nice, nearly transparent flake of chalcedony and could only guess at the beauty of the point manufactured from this same piece of stone. Then John called me over and told me it was picture time. He let me look around until I too spotted his find, a whopping 6 inch Archaic knife in nearly pristine form, and quite thin as well. This was the biggest blade John had ever found in his 25 years of collecting, and later that night we cleaned off the caliche with muriatic acid in my garage to reveal alternating shades of tan and brown. It is truly a showpiece.



FIGS 41-43: The author overlooking a stream bluff, chalcedony flake, top half of flint blade (Site 433)



FIGS 44-49: John Jackson and his biggest flint blade ever this and next page (Site 433)



Later in the day on another bar I grabbed a scapula from some sort of critter. I had trouble convincing myself of relative age until I saw a foramen with caliche adhering to it; this bone was indeed Pleistocene. In all it was a fairly easy trip and I was glad to make it worth John's gas early in the game.



FIGS 50-51: Unidentified distal scapula (Site 433)