

**FOSSIL COLLECTING REPORT**  
**January 2008**  
Daniel A. Woehr and Friends

January 13, 2008: Old Man and the Kid

My 5 year old son Weston has been asking me to take him fossil hunting lately, so I got him up around daylight and set out for his favorite spot in the 68 MYA Corsicana formation, or the "red dirt" as he calls it. As I expected, the place really was dirt, powdery dirt, and freshly graded at that. The lack of significant rain since September has pretty much put a halt to our collecting in that area...or has it? While I toiled away looking for Maastrichtian marine fossils in the worst conditions I've ever encountered at the site, Weston had a blast running up and down hills, throwing rocks, screaming, creating avalanches, flying a remote controlled airplane, and occasionally stopping to pick up a bivalve or gastropod.

We hit 3 or 4 exposures and found essentially nothing. At the next exposure we saw where part of the crab and echinoid zone had been dug up and spread over a small area. Powder covered everything but I slowed down and grid searched the area thoroughly nonetheless, and soon a white bumpy object jutting out of marl nodule caught my eye. I flipped it over and found a glaring white *Dakoticancer australis* carapace half exposed on the other side, and one of its legs is what had originally caught my eye. Weston was impressed. A half hour of this turned up 2 more nice carapaces and 2 disheveled ones along with 3 or 4 echinoids, one being a nice *Plesiaster americanus* and the rest *Hemiaster bexari*. I picked up a couple nearly complete *Eutrephoceras nautiloids* as well. When Weston expressed some interest in finding a crab of his own I called him over when I spotted half of one jutting out of the ground, then let him find it for himself.



FIGS 72-74: Crabs *Dakoticancer australis* from the Corsicana formation (Site 349)



**FIGS 75-77:** 2 echinoids *Hemiaster bexari* and one *Plesiaster americanus* above, 2 nautilioids *Eutrephoceras* sp. center, bivalves including *Plicatula mullicaensis* and *Lima guadalupensis* below (Site 349)

The next exposure was undisturbed by heavy equipment but had seen some collecting since last rain, specifically mine and a buddy's. Still Weston and I gave it 30 minutes and I grabbed a half dozen *H. bexari*, most in rough shape. We did a little offroading on our way out, with Weston claiming this was "the best day of his entire life." I

made sure Mama knew how much “man time” means to him. I was pretty pleased with our finds but given the conditions I think we just got lucky. The next downpour will bring a pile of fossils.



**FIG 78:** Echinoids *H. bexari* (Site 248)

We had a little time before heading home so we dropped into an area creek exposing slabs of 90 MYA Eagle Ford limestone in the float. In short I picked up a couple worn ammonites and shark teeth in matrix before we grabbed a sandwich and headed back to the house. Dropping Weston off I headed back out solo for a push into the lower Cretaceous Glen Rose formation (108 MYA). A couple buddies had tipped me off to sites bearing *Goniopygus guadalupae* echinoids so I drove by for a sniff. Sadly one site had a new house on it and the other bluff was covered by a fresh retaining wall. A couple sites in this area each gave up a few *Loriolia rosana* and one *Coenholectypus planatus* echinoid, enough to keep my attention but not worth the rest of the day.



**FIGS 79-81:** Eagle Ford shark teeth *Cretoxyrhina mantelli* and *Squalicorax falcatus* (in matrix) above, unidentified micro shark tooth in matrix and ammonite impression below (Site 76)



**FIG 82:** Echinoids *Coenholectypus planatus* top left, *Pseudodiadema elevatus* bottom left, remainder *Loriolia rosana* (Sites 431-432)

Still another quick hit on another site produced 3 *L. rosana* echinoids and my final site produced 2 or 3 *Salenia* c.f. *phillipsae* and one *Globator hancockensis* echinoid along with some star shaped *Isocrinus annulatus* crinoid columnals and a couple pieces of crab claw.





**FIGS 83-85:** Echinoids *Salenia* sp., *S. phillipsae*, and *Globator hancockensis*, crab claw *Paleopagurus banderensis*, bivalve *Neithea* sp., and crinoid parts *Isocrinus annulatus* above (Site 161) followed by echinoids *L. rosana* (Site 249)

My truck's differential was beginning to moan at me, a harbinger of expensive repairs to come so I headed home in time to dump the truck off at the shop and hope it and my wallet can recover by the next weekend.

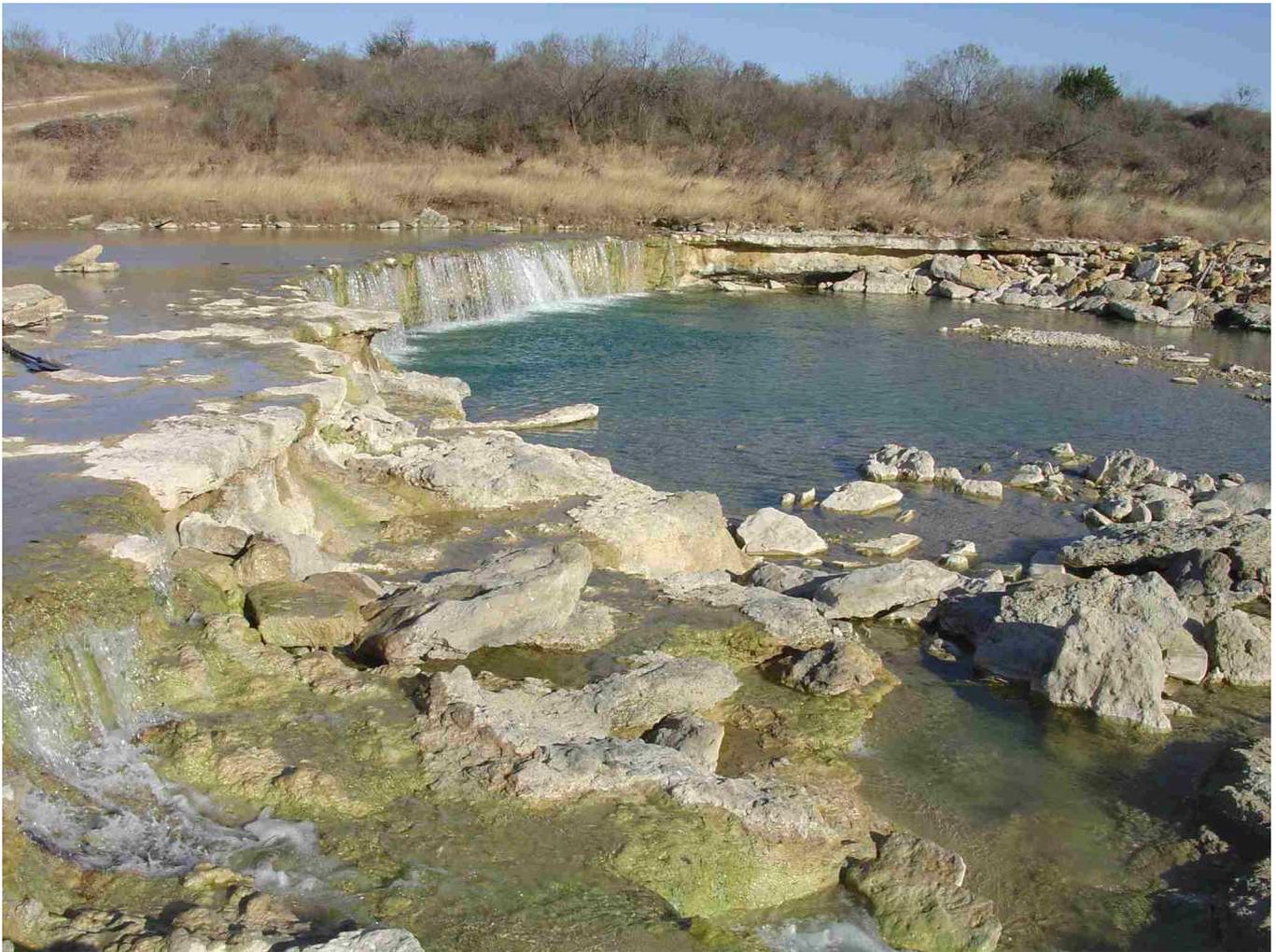
January 19, 2007: Sphenodiscus the Hard Way

I hooked up with my good friend Tom Fisher early Saturday morning and with the intention of collecting a certain area but conditions and forgotten equipment made it clear that a Plan B was necessary as Plan A would have to wait a few weeks. We swung back to my house, grabbed my kayak, and headed for a certain creek incising the Escondido formation (66 MYA) in a zone rich in ammonites including *Sphenodiscus pleurisepta*, *S. lenticularis*, and *S. intermedius* although I can't distinguish between species. *S. lenticularis* is most prevalent in that area so I'll refer to my previous finds there as *Sphenodiscus* c.f. *lenticularis* for simplicity.

However simply driving to our designated stream was not in the cards for us. Our illustrious highway department had thoughtlessly opted to close highways 35, 410, 10 simultaneously for construction, bringing San Antonio traffic to a standstill. As we sat in traffic for an hour and a half I was seething and wished I could get my hands on the highway guy's throat. Finally we were able to drive down a berm, onto the access road, through a parking lot, then weave onto some back streets only to find them as choked with traffic as well. After an eternity I was able to get us away from the mess, but it was 3 o'clock before we dumped Tom's car downstream, parked mine 4-5 miles upstream, and threw the yak in the water.

Since it had gotten down to 29°F the previous night we showed up with rain suits, high rubber boots, and long waterproof gloves. All this planning was not enough for one of us (name withheld to protect the unfortunate) who took a headlong dive into the clear, frigid depths and emerged pretty miserable. Nobody laughed except for the cow nonchalantly observing and plaintively chewing its cud on the opposite bank.

With that under our belt we proceeded downstream. I had previously checked with the local game warden concerning legality of access to this area so when we saw a new barbed wire fence crossing the creek we knew that it was illegally strung and simply crossed under it. A mile or two downstream we had arrived at a pristine waterfall of spring fed waters cascading over the fossil rich Escondido limestone. There was hardly a trace of tool marks from my previous trip, and on top of the falls we immediately encountered many imbedded ammonites begging for extraction.



**FIG 86:** Panoramic view of Site 417A

3 pound sledges and heavy chisels were *de rigueur* for this excursion. We must have spent an hour beating out ammonites, losing a few, giving up on a few in lieu of breaking them, and ultimately heading out with the best preserved, easiest to extract specimens we could find. We had several ranging from 4 to 8 inches by this point. On a stratigraphic note the *Sphenodiscus* layer immediately overlies a layer of oysters and various bivalves and gastropods including *Turritella* so I nabbed a few choice gastropods for good measure. The limestone slabs piled up immediately downstream of the waterfall contained yet more of the same, a mix of ammonites and gastropods depending on horizon of origin.

The slabs had fewer ammonites in comparison to the falls, but I picked up a couple of my best ones there including one standing out in relief from a chunk of matrix and a second specimen that when split away from the parent rock revealed a smaller juvenile attached to the living chamber of the largest specimen. Locating good sites for this genus of ammonite is difficult in Texas, but they occur locally in abundance in these scattered sites. For these reasons these ammonites are considered somewhat uncommon here, which is why I was so tickled to land a double.



**FIGS 87-94:** Escondido fm ammonites *Sphenodiscus* c.f. *lenticularis* this page and next 7 pages (Site 417A)





















**FIGS 95-97:** Various gastropods including *Turritella trilira*, a narrow high spired form (Sites 417A and 417B)

Drifting down the bank we both spotted a white bone 10 feet above us, so I jumped out for a look. It appeared to be Holocene or recent to me, but the up close perspective revealed the keel of yet another ammonite jutting out of the bank. I would have otherwise missed this one and soon exhumed with hand sledge and chisel despite the awkward working angle.



**FIG 98:** Another *Sphenodiscus* ammonite from half way between Sites 417A and 417B

Paddle and drag, paddle and drag...the same low water that exposed these collecting areas also made for an interrupted trip downstream as shallow gravel bars forced us to get out and walk a couple dozen times in 5 miles. The next bank downstream glowed orange in the setting sun as we rounded the bend and beached the yak. Immediately we began grabbing more ammonites in the rubble at the base of the bank, some in the orange/tan limestone slabs, some in free of matrix, both on dry ground as well as in the water.

It was a race against darkness to haul off what we could as fast as we could. I let Tom work the slabs while I traversed the bluff in effort to learn more about the geology. I traced the same zones as upstream and then spotted an ammonite keel jutting out of the exposure at head level. With careful and gingerly hammer blows I was able to free a perfect 8 inch beauty from the bank and haul it back to the kayak.

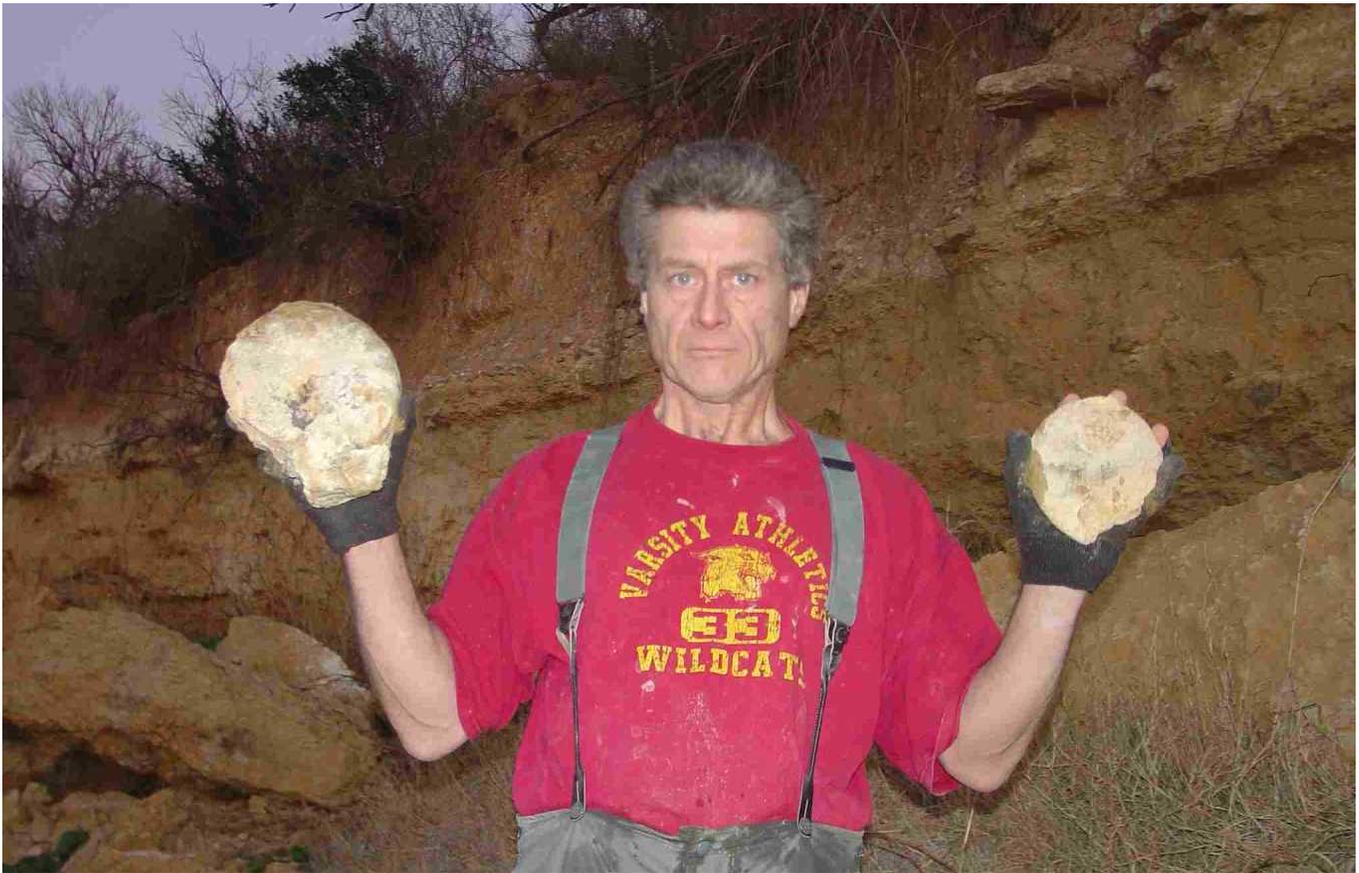


**FIGS 99-104:** Site 417B and 5 views of a very nice *Sphenodiscus ammonite* from that site









**FIG 105:** Tom Fisher and 2 of his many *Sphenodiscus* finds (Site 417B)

With the full moon, clear skies, and gin clear water I could see the shadow of our boat against the gravel 8 or 9 feet down. It was a surreal experience, but I was shaken back to reality each time we hit another gravel shoal and had to jump out and drag the yak. The final body count was 9 ammonites for Tom and 13 for me, and the yak was so heavily loaded that with us, our gear, and our finds onboard if one guy leaned slightly while paddling, water would spill into the boat.

Ultimately we heard voices a couple hours after dark and when rounding the corner spotted the faint glow of lanterns under the bridge where we had staged Tom's car. 3 or 4 friendly young fishermen helped us get our gear out of the water and we were soon on our way home. Its funny how things can turn around so quickly in a day. We experienced a spectrum of emotions that day from crestfallen disappointment to outright tooth gnashing frustration followed by admiration of God's beautiful earth, consummate elation in grabbing a bevy of rare platter sized ammonites, and ultimately welcoming the comfort of civilization.

Although I had first called the game warden, told him exactly where we planned to get in and out of the stream, what we planned to do there, and got Johnny law's stamp of approval on our trip, an adjacent landowner didn't like seeing my truck pulled off the road near his property. He ran my license plates, called me at home a few days later, and cussed me up one side and down the other with profanity I didn't know existed when this octogenarian was born. To me it seemed like an attempt at intimidation. If he really had a legal leg to stand on, he would have had a little welcome party for me at my truck that night with the county sheriff as guest of honor. Access to Texas waterways is sort of a vague concept so when venturing into questionable areas I prefer to get the game warden on my side then keep his number and my cell phone on my person during my excursion. So far so good with this approach.

Since some of these ammonites when broken by chiseling showed evidence of colorful calcite filled internal chambers, I opted to send some of the "uglies" up to Dallas to my friend Mercer Brugler who has a side business finding, cutting, polishing, and selling ammonites. If my "cutters" look nice I'll post images of them in a later report.

January 27, 2008: South Texas Upper Cretaceous Crap Shoot

Sunday brought yet another chance to pursue one of my favorite pastimes, exploring the Texas outback for fossils. After a call to the game warden in this particular county to confirm legality of my excursion I set out on a long morning hike down my chosen stream bed. Ultimately I reached a long cliff exposing yellow Anacacho limestone (72 MYA) and gave the slabs and boulders that had fallen down a good hard look for echinoids.

My quarry showed itself early and consistently throughout my search. I had hoped to find rare regular echinoids, but instead found about 3 dozen spatangoids *Hemiaster texanus*, some in excellent condition, others in clusters of specimens in rough condition. My hour long search panned out quite well actually, and I have the poison ivy to prove it, but the hike there and back turned it into a 3 hour affair.



**FIGS 106-107:** Anacacho limestone exposure west of San Antonio (Site 435)



**FIGS 108-120:** *Hemiaster texanus* echinoids this and next 9 pages (Site 435)



















The rest of my day was more or less a bust as I reviewed crusty old overgrown construction sites, walked a few river and creek exposures that turned out to be fossil free, and tried to visit a bluff of Austin Chalk documented to hold rare echinoids. I couldn't even find the bluff. Such is the price that must be paid in searching for new sites.



**FIGS 121-123:** Echinoids *Hemiaster weatherbyi* (small) and *Plesiaster americanus?*(large) above, bivalves *Neithea* sp. center, bivalve and *Baculites* sp. molds below (Site 79)

### Addendum 1: Human Skull Update

More than a year has elapsed since I turned in the human skull I found while fossil collecting in a Texas river. I learned that the person was of Native American origin, probably female, age 39-58 at death based on closure of skull plate sutures. No tribe was given and since the teeth and much of the face are missing and no DNA or carbon 14 testing was done neither tribe nor time since death has been determined. The report states that the specimen has no forensic significance. I had hoped to learn more about this person but since it obviously is quite old there is no point in the state expending funds which could otherwise be applied to open cases.



**FIG 124:** One of my more macabre finds (Site 273)

### Addendum 2: Mammoth Teeth!

Despite my valiant but as of yet failed efforts to secure a complete adult mammoth tooth, these teeth are in fact lying out there in the Texas outback and are found from time to time by knowledgeable and motivated collectors. Just this month for instance my friend Brian Miles, Curator of Paleontology of the Brazosport Museum, returned to one of his honey holes and found not one but two maxillary teeth eroding out of a bank at a creek site a bit too small to support much more than occasional collecting. As you can see in the attached photos one of the teeth is quite large. A couple years ago Brian took me to this site and we found a few interesting horse and glyptodont

specimens, so after this summer's Texas floods followed by a few freezes this winter I had been urging Brian to return to his site and let me know what he found. Now he's glad to have gone back and based on the proximity of the teeth as found, he plans to return to dig into the bank in hope of finding the skull.



FIGS 125-126: Brian Miles' associated maxillary mammoth teeth (Site 270)