

**FOSSIL COLLECTING REPORT**  
**MAY 2010**  
**Daniel A. Woehr and Friends and Family**

May 1, 2010: Navigating North Texas

Having received great site info from John O'Brien while I was on business in San Diego a year ago, I was happy to help him find some fossils while he was road tripping through Texas this month. We kicked things off with the understanding that some of the highest potential collecting could come if we were willing to investigate new areas rather than hit sites I've recently worked. So on that note we packed up the canoe and headed to far north Texas in attempt to satiate John's desire to clobber a few ammonites from the Duck Creek formation (103 MYA) and any other formations of the Washita Group we might encounter.

Our first canoe run took us several miles to a big bluff with several interesting looking rock slides. Several huge boulders and slabs had fallen down from the top of the bluff, a gray, marly, indurated (burrowed) slab piquing my interest. Upon closer inspection the marl zone was found to be studded with small spatangoid echinoids in the *Heteraster/Washitaster* spectrum along with *Neithea* and *Plicatula* bivalves as well as small limonitic *Plesioturrilites* ammonites.

But one round, studded object caught my eye and got my heart pumping.....it was an upside down regular echinoid that I've never collected before, and when I flipped it over I could see that it was perfect on all sides. Tentative ID is *Leptarbacia arguta*, and I may never find another, so I'm glad this one is gem grade.



**FIGS 1-6:** Itinerant fossil collector John O'Brien observing the Mainstreet Formation followed by images of rare echinoid *Leptarbacia arguta* (?) found there by the author (Site 536)













**FIGS 7-9:** *Heteraster* or *Washitaster* echinoids, some with cool adhering pyrite crystals this and next 2 pages (Site 536)







**FIGS 10-11:** Also from the Mainstreet Formation a *Coenholectypus* echioid partially exposed above, fish vertebra in matrix next page (Site 536)



We billy goated further up the bluff to get closer to the source of these rock falls. At first I thought I was looking at the Weno Formation, but an analysis of fauna suggested Mainstreet Formation. *Plesioturrillites* ammonites, *Coenholectypus* echinoids, and *Kingena* brachiopods all screamed Mainstreet to me as did the massive, gritty character of the limestone. I found it odd that John encountered a slab of *Macraster* echinoids in hard matrix as I've never seen them this high in the Washita section.

John also ended up with a *Holaster* and a *Macraster* echinoid from the Duck Creek or Fort Worth section on the way back to the vehicle.

En route to another site we crossed a creek that begged our scrutiny....no signs, no fences so soon we got our feet wet. I immediately found two 10 inch *Eopachydiscus marcianus* ammonites under the bridge, and we both scored *Mortonicerias* ammonites as well within a few feet. I short waded down the creek revealed a 125+ LB Eo so cemented into the bluff that I had to simply get a picture and keep going. Before we left John and I spent a half hour beating out a well preserved 50-75 LB Eo, John's first, a great specimen by anyone's standards.



**FIG 12:** From the Duck Creek Formation a huge *Eopachydiscus marcianus* ammonite entombed in hard limestone where it still remains (Site 537)



**FIGS 13-16:** Sequential shots of a Duck Creek *Eopachydiscus marcianus* ammonite in various stages of excavation ending in a smiling John O'Brien and a group shot featuring his weekend take home pay this and next 3 pages (Sites 537 and 538)







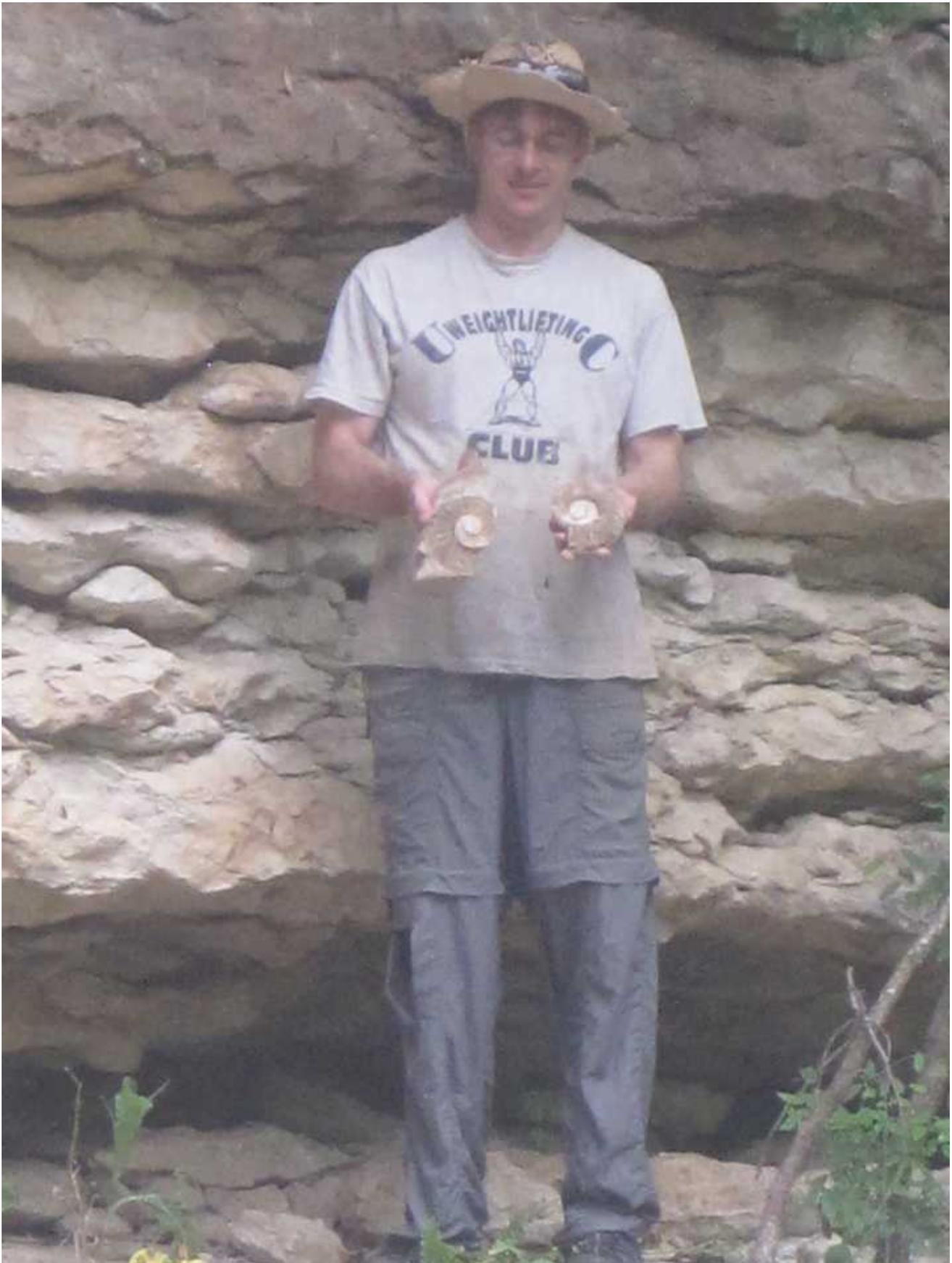


**FIGS 17-18:** The author's best *Eopachydiscus marcianus* this and next page (Site 537)



We stopped at one more creek, hiked upstream and downstream for at least a half mile each way, and couldn't escape the curse of the *Eopachydiscus*....they were big, heavy, and begging us to take them everywhere we went. Digging them out tends to sap one's energy, however. I ended up grabbing 2 Eos, giving John one, and we both grabbed a Mort or two as the sun began to drop.

All in all it was a spectacular day....all exploratory sites with good finds at every stop. Not every day goes this well so I'm glad it came at a time when John was here as I enjoy paying back those who have helped me out with good site info.



**FIGS 18-19:** The author with a positive and negative of a Duck Creek Formation *Mortonicerias* ammonite followed by another Mort next page (Site 538)



### May 2, 2010: The Downside of Exploring and the Value of Proven Sites

Again we embarked on Sunday with high hopes.....more sites to explore. The first was a creek exposure of Mainstreet formation. Between the nasty water and lack of fossils we were both quick to throw in the towel on this site.

Our second site was a canoe run launching into the unknown beginning where I had bagged some nice Eos the previous weekend. While paddling along I spotted a nice Mort in the bank from afar and made quick work of it, adding it to John's take home pile. A gravel bar gave up a nice Eo for me, slightly water worn but free of matrix and displaying its sutures well. We found a huge series of Duck Creek limestone benches but were underwhelmed by the fossil content, so we packed it up and headed back to the vehicle, a little wet from a mishap in a section of rapids but my oh my, how the boat did shine clean when were got back! The clear waters were somewhat less therapeutic for John's digital camera.



**FIGS 20-22:** Two shots of a very scenic Duck Creek Formation Site 534 plus the author's water worn but keeper Eo found there



By this point our take was meager compared to the previous day, so we committed to a little driving and proceeded to a classic Texas site, the Lake Waco Spillway. With minimal instruction John was showing his experience and good eyes. He found a spectacular *Ptychodus* tooth an inch wide – this was the largest such crusher shark tooth I've ever seen from this site, and I've never found one there myself. He also took a spectacular pyritized *Hemiaster calvini* echinoid among other things.



**FIGS 23-24:** Three fossil shark vertebrae from the Del Rio Formation next to a possibly modern freshwater drum jaw followed by two pyritized *Sciponoceras* straight ammonites (Site 46)



**FIGS 25-26:** The author's pyritized ammonites *Plesioturrlites*, *Otoscaphtes*, *Mantelliceras*, and *Adkinsia* followed by John O'Brien's spectacularly huge *Ptychodus* tooth (Site 46)

I on the other hand took tons of pyritized micromorphic ammonites, most of which will go to John, a fish mouth plate of dubious age, some shark vertebrae, and a shark tooth blade. I was hoping to see some *Goniophorus* echinoids but they never materialized. After getting a good taste of this spectacular site I think John plans return later in the week.

May 3, 2010: Without Further Adieu, a Canoe for Two

John O'Brien was ready for paleo action on Monday, and I had a stream stretch in mind well in advance of getting the nod from my boss to take the day off. So that morning we dumped John's Jeep at one bridge and headed back upstream to dump my vehicle and slide the beaten up old canoe into the current for an 8 mile paddle, half exploratory, half repeat. We did reasonably well on the water, managing to keep the river out of the boat the entire day except for what draining shoes had sloshed in.

Gravel bar after gravel bar we trudged along, walking the boat through rapids and shallows until John made the best find of the day, a honey colored, spectacularly preserved Pleistocene horse upper molar. Following up with half of a horse lower molar, John wasn't doing too badly. My finds were restricted to a chunk of mammoth leg bone which I gave to John, and he again bested me with a small scrap of mammoth tusk ivory.

The stream was beautifully clear and I kept my eyes trained on the clean gravel as I shuffled through gin clear water, but alas, our finds ended there. The adventure however continued.



**FIGS 27-28:** From Pleistocene terrace deposits a section of mammoth limb bone, mammoth tusk fragment, and horse tooth, close up of horse upper molar next page (Site 415)



Aerial photos had revealed the presence of a dam in the stream, but I was unable to scale it against any known reference until just going there for a look. Once we got there we could see that it would be a slow and arduous portage followed by a set of rapids, and we were low on daylight hours, so we made the command decision to turn back and haul our carcasses and our gear out at a nearby bridge.

Problem: One vehicle was upstream 4 miles and the other downstream 4 miles, leaving us in a bit of a predicament. Exhausting conventional options to extricate ourselves from the situation, I resorted to an old standby.....hitch hiking. Since I'm much too ugly to show a little leg to get a ride I did the next best thing...beg and show money.

After about 15 cars went by without stopping, a Suburban loaded with young latino gentleman stopped to survey our predicament. The back seat and rear of the vehicle were jam packed with furniture, so 3 caballeros and I crammed into the front seat, so tightly in fact that I couldn't close the door. The driver floored the accelerator and I assumed a death grip on the dash as he took tight turns. All the while my other new friends swilled beverages of choice and we all enjoyed blaring Tejano music. These were really nice guys, just young and out having fun. In fact I told them that I'd remember them when it was time for me to be a good Samaritan. Once safely beside my vehicle I allowed my good friend Andrew Jackson to express my gratitude for their magnanimous gesture during my time of need.

Not every day spent in the outdoors goes exactly as planned, so one must be prepared physically, mentally, and at times financially to deal with a derailed plan.

#### May 8, 2010: The Corsicana Kid

I guess Weston got the break he needed from fossil hunting because he actually asked me twice on Saturday to take him out so we could hunt fossils, ride bikes, and shoot his BB gun. Well twist my arm! To the Corsicana construction site we went.... I had sent my buddy John from California there a few days prior, so I didn't expect much in the way of finds. But it was obvious that it had rained hard at least once since my last visit, and John didn't hunt these small fossils on hands and knees the way I do, so Weston and I actually did fairly well.



**FIGS 29-30:** Rare echinoid *Rachiosoma hondoensis* from the Corsicana Formation (Site 349)



**FIGS 31-32:** Large, well preserved, scarce echinoid *Plesiaster americanus* from the Corsicana Formation this and next page (Site 349)





**FIGS 33-34:** Echinoids *Hemiaster bexari* followed by ventral view of partial crab carapace *Dakoticancer australis* (Site 349)



**FIGS 35-36:** Unidentified gastropod this page followed by bivalves *Trigonia castrovillensis*, *Neithea bexarensis*, gastropod *Cypraea* sp. and oyster *Ostrea mesenterica* next page (Site 349)



My best finds were a big, inflated *Plesiaster americanus* echinoid and an ultra rare *Rachiosoma hondoensis* echinoid, perhaps my fourth or fifth over the years. I took a handful of *Hemister bexari* echies plus some bivalves and gastropods for an interested museum.

All in all it was a good day, albeit short. To help keep Weston interested I let him set the pace and duration of the trip, and with a little ice cream afterward we sealed the deal on good day in the dirt.

#### May 9, 2010: Upper Cretaceous Ad Nauseum

John O'Brien rolled back into town after a productive week of self guided Texas collecting at a handful of sites I directed him to. A grand finale was in order on Sunday. I had saved a site in the Escondido Formation to wow him as his Texas trip wrapped up. Escondido is Spanish for hidden, and not only is this particular site fairly well hidden, but sometimes the fossils hide themselves well too, as you will soon see.

A long trek paddling, carrying, and dragging my canoe finally put us on the limestone bench that had given up many ammonites for me in the past. In fact, Weston and I had just indulged ourselves there a few weeks prior. However I'm always surprised at what was overlooked on prior trips...and my oversight became glaringly obvious this time.

I spent the first part of the trip throwing out juglines rigged for catfish while I sight casted to a pool loaded with sunfish, catfish, Rio Grande perch, bass, and gar with just the panfish finding interest in the shrimp on my hook. I had sent John ahead to the fossil zone and heard happy chiseling in the distance.

Eventually I gave up on the fish and gave chase to the *Sphenodiscus* ammonites up John's direction. When I arrived he had a pile of 6 or 8 specimens, and following behind him I was able to wrangle a couple of my own. Between the overwashed mud and the nodular character of the limestone, it really is easy to overlook the curvature of a partially exposed ammonite. We probably broke as many as we extracted whole due to hard limestone combined with ammonites worn thin on the exposed side by erosion.



**FIGS 37-43:** Spectacular association of Escondido Formation fossils including 6 articulated, unidentified (possibly *Squalicorax pristodontus* or *Serratolamna serrata*) shark vertebrae, a *Sphenodiscus pleurisepta* ammonite and on the reverse side a crab claw finger, possibly *Ophthalmoplax* this and next 6 pages (Site 417)













**FIGS 44-47:** John O'Brien's best *S. pleurisepta* ammonite followed by a couple more found by the author and the author's unidentified Escondido Formation gastropods this and next 2 pages (Site 417)





A few ridges peeking out of a limestone knob got my attention, and a few hammer taps laid it open, exposing a string of 6 associated shark vertebrae – a very rare find, especially in this formation or in South Texas in general. I did the best I could to take the verts out in a 15 pound chunk of matrix but experienced another split in the rock, leaving me with 3 chunks. Fortunately I had enough superglue on hand to stabilize everything.

As I worked my way around the rock to release it from the bench, I chiseled a sliver of limestone out of the way to reveal a nicely sutured *Sphenodiscus* ammonite lying about an inch under and to the side of the vert string.....a very cool association, especially with partial crab claw and a partial shark tooth in the same rock. It took a few hours of hard prep work to reveal, but eventually I worked this rock down to fully expose all specimens and it is quite an impressive presentation.

10 feet a way I dropped my pack on the ground only to see more bone next to it. Not nearly as spectacular as the vert string, I ended up with about a 6 or 8 inch section of turtle or other marine reptile bone, but it broke into several pieces and didn't go back together all that nicely. Still it was an interesting find nonetheless.

John continued walking around wishing aloud for one spectacular ammonite with good sutures. Since several trips had pretty well picked over this particular collecting area, we were relegated to working out specimens eroded open on the top side, hoping they would hold together to reveal a nice reverse side.

I put 20-30 minutes into just such an ammonite, and out popped a very pretty *Sphenodiscus*. This fueled John's quest. He too worked on a partially eroded specimen, and once it released from its lithic death bed it revealed perhaps the most beautifully presented suture pattern I've seen on a *Sphenodiscus*. It was a trip maker for him.

The return paddle put one more catfish in the boat, so when I eventually made it home I was able to fry up a couple fresh fish for my lovely girlfriend Ms. Rene' for Mothers Day.



**FIGS 48-51:** The author's exploded and reconstructed Corsicana Formation crab *Dakoticancer australis* followed by a small but well preserved unidentified shark vertebra this and next 2 pages (Site 349)







**FIGS 52-53:** The author's Corsicana echinoids *Hemiaster bexari* followed by various bivalves and gastropods (Site 349)

Before heading home we sidetracked back to the Corsicana site for a final round.....John wanted to find a *Dakoticancer* crab. We gave it an hour or two and found some rough crab carapaces, but not the screamer he was looking for. However, any disappointment was assuaged by the presence of lots of other goodies to pick up and take home, namely *Hemiaster bexari* echinoids and a host of bivalves and gastropods. I continued the roll I was on that day by picking up a perfect little ¼ inch diameter shark vertebra and thus ended a perfectly splendid day of collecting the Upper Cretaceous of South Texas.

#### May 11, 2010: Stone City Sojourn

Led by the urge to find something a little different than my usual Cretaceous ammonites and echinoids I took a day off work, deployed my canoe, and ran several miles along a particular stretch of Texas stream. The put-in was tough with all the mud at water's edge, but at least I had gravity on my side.....the take out would be a different story. Anyway my trek took me through some interesting sights: a big alligator flopping off the bank into the water, large gar rolling at the surface - in fact, one of those monster alligator gar rolled right in front of my boat and I slammed into it at wide open throttle (about 12 knots). There were two bumps in rapid succession, one for the hull and one for the lower unit. I'm lucky the incident didn't roll the boat. My unwitting speed bump showed its appreciation with a massive tail slap which soaked my face and everything in the boat.

Finally I reached my target destination, a particular bench of gritty glauconite jutting out into the water. This represents the Stone City Formation, Eocene in age, roughly 45-50 MYA. Despite the overlying mud many shells could be seen jutting out of the rock, mostly bivalves and gastropods but also branching corals and other marine forms. Fossilized burrows low in the exposure denoted a former hardground, or ancient sea floor. My target that day was the ornate gastropod *Cornulina armigera*, and in time I found 10 or 12 of them, with perhaps half being what I'd consider keeping at this point. The piece de resistance was a *Cornulina* double in reddish tan gritty shell hash, various *Venericardia* bivalves and other gastropods studding the matrix. I also picked up a nice little stingray pavement tooth during time spent scratching around with hand tools.



**FIGS 54-57:** Eocene Stone City Formation gastropods *Cornulina armigera* in situ and prepped this and next 2 pages (Site 518). Note *Crassostrea* (?) oysters in FIG 57







**FIGS 58-60:** Stone City and Cook Mountain gastropods – unidentified this page, *Pseudoliva* plus several unidentified below stingray pavement tooth next page, *Athleta* in matrix following page (Site 518)





It was a fun day on the water and I covered many miles, opting to pull out around 4. That's when I realized that 3 feet of chocolate pudding mud, gravity, and elevation don't mix. My boat and legs became so stuck in the mud that it took me perhaps an hour to get all my gear in the truck. In the end I had to yank my canoe out of the quagmire with a long rope tied to my truck. Home was quite a welcome sight and after the boat take-out ordeal I was happy to return to work the next day.

May 16, 2010: Its Raining Echinoids!

About 2 inches of rain fell hard on the greater San Antonio area on Friday and Saturday, piquing my interest in poking around some local Cretaceous honey holes for marine fossils. While I didn't expect to find any new species for my collection, the thrill of discovery keeps me coming back. Anyway, after a leisurely morning I finally logged some miles, donned my crawling gear, and got down low and slow at an Upper Glen Rose Formation (108 MYA) site north of town.

Apparently someone had a good time with a truck or 4 wheeler before I got there, with evidence of donuts and muddy rooster tails obscuring about half of the site. Undaunted, I went about my business in other unmolested patches of eroded marl. My efforts were not in vain.

About 3 hours of crawling resulted in a very rewarding take of micro echinoids: 11 *Salenia* sp., a couple partially crushed spatangoids, 3 *Goniopygus texanus*, 2 *Globator hancockensis*, and 2 *Orthopsis comalensis*, the latter 3 species comprising some of the more exotic echinoid finds in that particular formation. *Paleopagurus banderensis* crab claws and *Isocrinus annulatus* crinoid columnals added a little variety.



**FIG 61:** *Salenia* echinoids from the Upper Glen Rose Formation (Site 161)



**FIGS 62-63:** Rare echinoids from the Upper Glen Rose Formation including two *Globator hancockensis* left, two *Orthopsis comalensis* bottom, and three *Goniopygus texanus* this and next page (Site 161)





**FIG 64:** Unidentified crab claw finger left of hermit crab claw finger *Paleopagurus banderensis*, several crinoid stem partials *Isocrinus annulatus* right (Site 161)

Always a fun site, but hard on the knees, even if you don't have knee problems. I left a good portion of the productive area of the site un hunted and enjoyed a therapeutic drive through bucolic environs en route to my next high percentage site.

The Corsicana Formation is in my blood as it is rarely exposed well in Texas and I've been fortunate enough to hunt a site for the last 5 years, largely off the public radar although I've been able to guide perhaps 3 dozen buddies there over the years with rave reviews for the site. This particular day I approached it alone. A house going in nearby may result in heavy equipment tracks which wipe out the best zone, so I figured a rapid response was required immediately after this last round of rain. Once again the site responded well to the pounding precipitation, despite my double day visit there the prior weekend - testament to the fast eroding nature of the matrix.

On my knees crawling again, I ignored the skin shear as I knew what treasures could lie before me. In the end I was far from disappointed...3 nice crab carapaces *Dakoticancer australis* hit the bottom of my catch bag, one waving a white claw of surrender on the surface of the ground, the only part of it I could see initially. In addition to the most prevalent echinoid *Hemiaster bexari* which comprises statistically about 90% of the echinoid fauna, I also took good examples of *Plesiaster americanus*, *Proraster dalli*, and *Linthia variabilis* - always welcome finds. A *Eutrephoceras* nautiloid, gastropods and bivalves galore rounded out a good take at the first site.



**FIGS 65-67:** Corsicana Formation crabs *Dakoticancer australis* this and next page (Site 349)





**FIGS 68-70:** Scarce Corsicana Formation echinoids, left to right, *Linthia variabilis*, *Proraster dalli*, and *Plesiaster americanus* (Site 349)



FIGS 71-72: Corsicana echinoids *H. bexari* followed by *Eutrephoceras* nautiloid (Site 349)



**FIGS 73-74:** Corsicana scaphopod *Gastrochaena* followed by various gastropods (Site 349)

The second site has never really recovered from being graded during its heyday, but I gave it a quick look nevertheless. I first found a nice, nearly complete *Lima sayrei* bivalve, then a perfect *Linthia* echinoid along with more *Hemiasters* - well worth the quick stop. The third site was no slouch either. It spit out another *Eutrephoceras* nautiloid and several *Hemiaster* echinoids, but most importantly an 80% complete, silver dollar sized shark vertebra....very rare for the site.



**FIGS 75-77:** Large and rare Corsicana Formation Shark vertebra this page followed by *Eutrephoceras* nautiloid next page (Site 348)





**FIGS 78-79:** Well preserved *L. variabilis* echinoid (Site 348)



**FIGS 80-81:** Rare bivalve *Lima sayrei* followed by three *H. bexari* echinoids, a scallop *N. bexarensis*, and an unidentified gastropod and twiggy bryozoan (Site 348)



So riding high on a pile of great finds that could be appreciated by even the most discriminating collector I cut the day short and made my way home to grill some steaks with my girlfriend, thus rounding out a perfect day.

May 23, 2010: Weston Flexes His *Sphenodiscus* Chops

Having learned my lesson last time, on this kayak trip I packed a cooler full of chicken salad sandwiches, Cheetos, donuts, and Gatorade...sunscreen and bug spray....everything an active 8 year old needs to kayak several miles on a favorite stream with the Old Man. Recent rains across South Texas gave me the sneaking suspicion that perhaps some new fossil treasures would be revealed in the Escondido Formation of South Texas. We were not disappointed.

A long paddle punctuated by bouts of fishing, swimming, running, and rerunning rapids finally brought us to a limestone bench where I had taken many ammonites in the past. Recent flooding had flattened the late spring vegetation, revealing parts of the bench that previously had looked a bit too snakey to get into. Having been to this site many times in the prior, I was surprised that we were still finding nice *Sphenodiscus* ammonites. My hand sledge and chisel went into action early and often as our stack of orange ammonites mounted. Even young Weston got into the act, pointing out a couple for extraction.



**FIGS 82-83:** Weston Woehr en route to fabled Site 417 this and next page



After plopping down in the kayak and enjoying some sandwiches we decided to walk an eroded bluff and see what we could find. I quickly spotted an ammonite keel and unfortunately the specimen wasn't much stronger than the soft, sandy clay surrounding it. It broke into 3 pieces as I pulled it out of the bank. Moving along, I looked at the ground to spot specimens jutting out of rock falls while scanning the grass for any serpentine friends and Weston kept his little eyes on the wall.

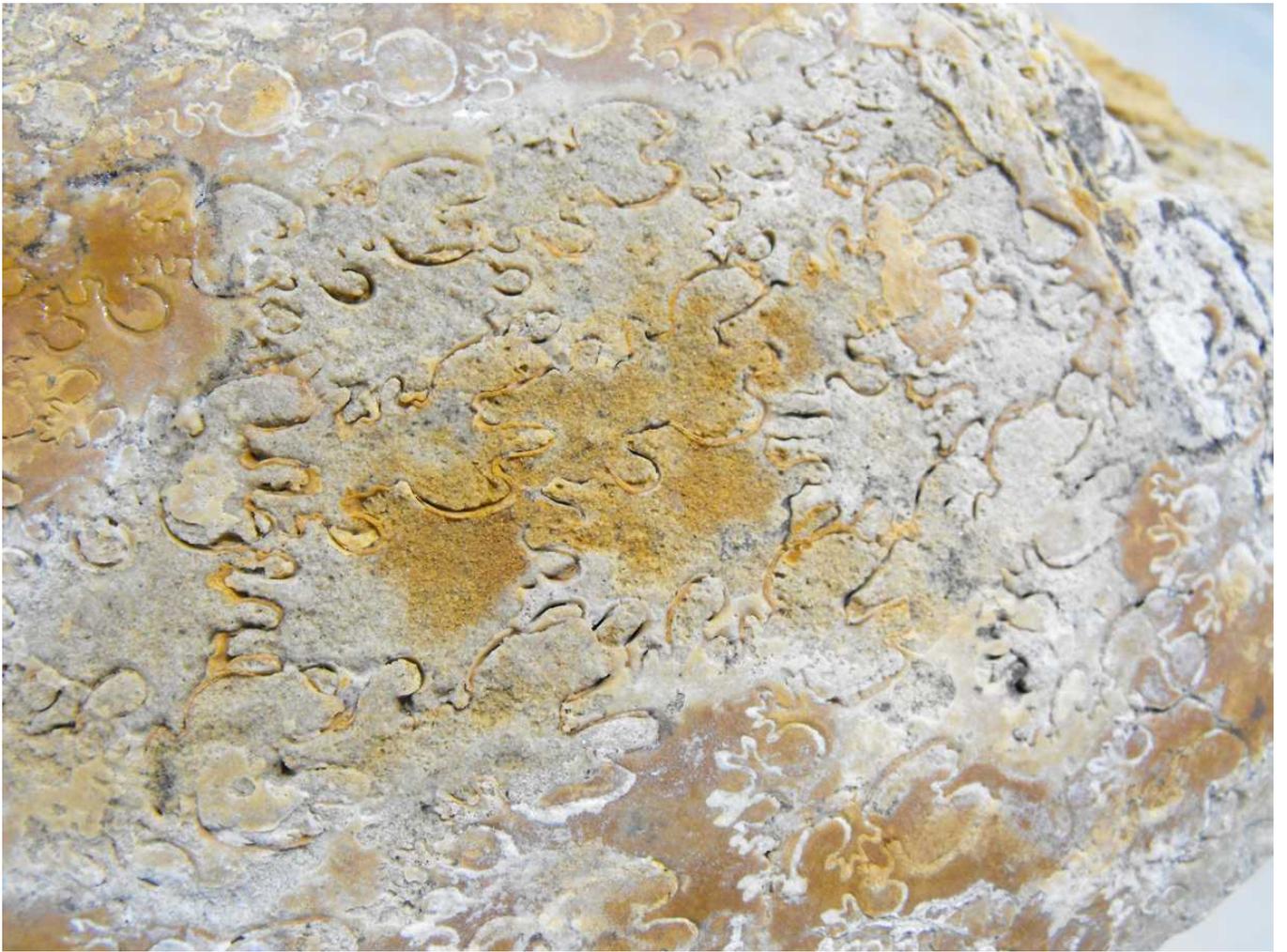
"Dad! Look at that big ammonite keel!" Indeed the boy had spotted a good one in the bank, all on his own. The orange sandy clay yielded after only a couple minutes and I gingerly wiggled out the boy's truly Smithsonian grade *Sphenodiscus*, a trip maker even for veteran ammonite collectors. He ran down to the creek and washed the dirt off, revealing superb sutures on both sides. This ammonite requires no prep work and will assume a prominent position of display back at the house. Its funny how one good find can take a kid bemoaning the rigors of fossil collecting and completely realign his mindset. We beat a couple more small ammonites and one *Eutrephoceras* nautiloid out of rockfalls and snagged a few ammos off the ground.....Weston was ready to press on for more.



**FIGS 84-91:** An elated Weston Woehr posing with perhaps his best fossil find to date, a perfect 11 inch *Sphenodiscus* ammonite this and next 6 pages, Fig 91 shows Weston's best ammonite with two smaller ones he also found (Site 417)















**FIGS 92-104:** A king's ransom in *Sphenodiscus* ammonites this and next 12 pages...njoy the sutures! (Site 417)



























**FIGS 105-108:** Three views of an Escondido Formation nautiloid *Eutrephoceras* sp. followed by an unidentified gastropod (Site 417)







After more paddling, swimming, and fishing we decided to mess around at a big gravel bar. I concentrated on the large orange cobbles at the head of the bar and soon spotted several more ammonites, including a real whopper

exposed on edge and eroding out of a boulder. A few whacks later I lay hands on not my prettiest, but definitely my biggest *Sphenodiscus* tapping over 14 inches at the widest point. Together we spotted and banged out another 4 to 6 nice albeit smaller specimens before making our final push.

We beached the yak and took a swim in a deep hole under a small but picturesque waterfall. Then something strange in the falls caught my eye...it was the keel of another ammonite. Weston got a big kick out of watching me beat an ammonite out of the face of the falls with water streaming over the specimen and myself. While wandering the limestone capping the falls we encountered an untapped stretch of yet more *Sphenodiscus*, thanks again to brush management via flooding. As soon as I'd get half way through extracting one ammonite Weston would scream out another.

I had a dinner date with my girlfriend and her mom, so we had to make a roostertail back to the truck. This was Weston's most productive fossil hunt ever...we took 29 *Sphenodiscus* of at least 2 species and one *Eutrephoceras* nautiloid along with a gastropod or two. Since Weston insisted on paddling and dragging the kayak when he wasn't flopping around in the water, his tired little frame collapsed in the passenger seat and I had to shake him awake in the driveway when we got home. We didn't catch any fish this time, but who cares...that's what the coast is for, so we'll concentrate on that adventure in the very near future.

#### May 29, 2010: Escondido Escapades – “Don't Stop Till You Get Enough”

For some reason I've had a real itch to scratch in the Escondido Formation this month, and Memorial Day weekend was no exception. So with my kayak and gear securely loaded I made my way to a particular South Texas stream with "ammonite aspirations". In short a few miles of paddling and looking revealed many ammonites that Weston and I had missed the prior weekend. I'd like to say that as an attentive father my eyes were tuned on safe surroundings for the boy, and that is certainly true, however I must also humbly admit that I may have just cleanly missed some exposed *Sphenodiscus* ammonites. Recent flooding had resculpted the stream bed, filling in some holes with gravel and making it a bit harder to navigate than before. Rather than load down the kayak and drag it through the shallows twice, I stacked my finds at the water's edge for easy pick up on the return trip.

My two best ammonites were found eroded out lying at the water's edge. Both were around 12 inches diameter or so, and one had a very nice whelk imbedded in its aperture resulting in a spectacular presentation once prepped. One four inch diameter *Eutrephoceras* nautiloid also made the scene. I really didn't need to use my tools much as most of what I found was sitting out for the grabbing although I did tap out a nice 10 inch *Sphenodiscus* at the farthest point in my journey.



**FIGS 109-129:** I still can't believe what Weston and I missed – another kayak load of *Sphenodiscus* from the Escondido – lots of character this time including a big whelk in the aperture of one large specimen and others with adhering gastropods, not to mention good sutures (Site 417)











































**FIG 130:** Escondido Formation gastropod *Turritella trilira* alongside unidentified bivalve (Site 417)

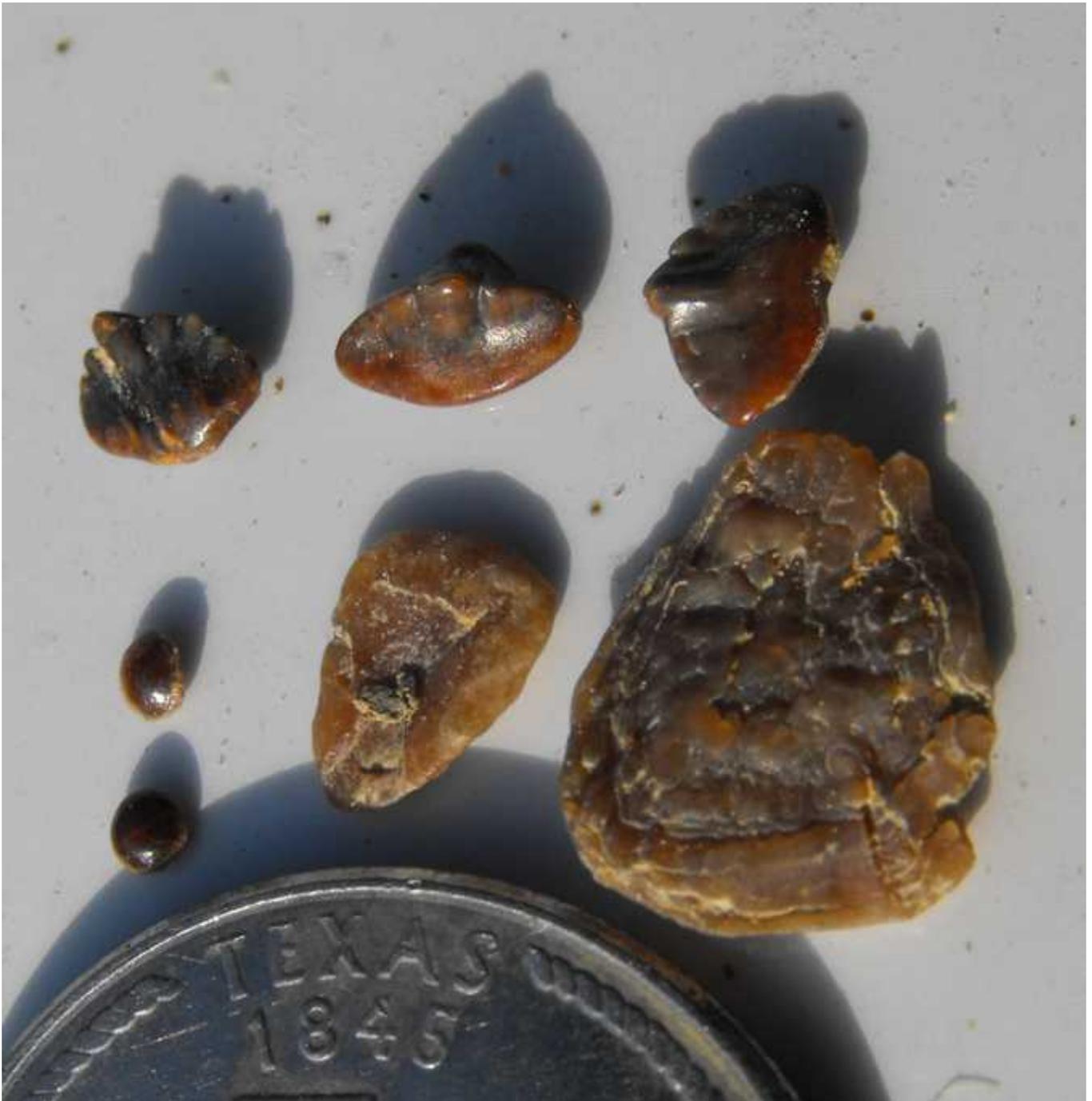
At one point a nearby landowner drove up in a golf cart and asked me to get back in my boat and leave. Although both the local game warden and sheriff had told me I was completely legal in my fossil quest, I chose not to allow this to become a sticky situation. Instead I spoke with the woman for 15 or 20 minutes and ended up giving her 8 or 10 ammonites and the nautiloid. She seemed content with the situation as did I, so we parted ways. A couple hundred yards farther along I encountered another landowner, this one pretty easy going and agreeing with me, the sheriff, and the game warden that I was indeed legal. In fact, he at times enjoys venturing upstream and downstream collecting a few ammonites for himself.

16 ammonites came with me and more than justified this leg of the trip so I loaded everything in the vehicle and proceeded to the next site, a clay pit also in the Escondido Formation - I had secured permission to collect site by talking with management. The drive in was tenuous...pig slop holes in the road to slosh and coast through, gates to open and close, and a nearly overgrown dirt track ultimately led me to the site. This site exposed a zone in the Escondido that was lower in stratigraphic section than the *Sphenodiscus* zone I had just visited. Here the weathering clays revealed many shark teeth sometimes in pristine condition but more often broken and/or worn. In fact 9 out of 10 looked as if they had spent some time in a rock tumbler.

An hour of crawling on hands and knees had revealed some good finds, most notably shark teeth *Serratolamna serrata* (mackerel shark), *Squalicorax pristodontus* (crow shark) and *Ginglymostoma lehneri* (nurse shark). I also picked up some ray teeth *Rhombodus binkhorsti*, fish teeth *Enchodus ferox*, and small shark vertebrae, the combined take making it well worth the effort.



**FIG 131:** Escondido Formation fish teeth *Enchodus*, *Ischyryhiza*, and others, one reptile tooth upper right (Site 86)



**FIG 132:** Three nurse shark teeth *Ginglymostoma lehneri* above, two pycnodont teeth left, two fish otoliths (earbones) right (Site 86)



**FIGS 133-136:** Enigmatic marine fossil this and next 2 pages....possibly shark cartilage (Site 86)



Picture: 0167 - 20100601\_193948.bmp



Picture: 0168 - 20100601\_194109.bmp



**FIG 137:** Ray teeth *Rhombodus binkhorsti* (Site 86)



**FIG 138:** Mackerel shark teeth *Serratolamna serrata* (Site 86)



**FIGS 139-140:** Crow shark teeth *Squalicorax pristodontus* followed by three shark vertebrae (Site 86)

Summer climes are certainly on the return. I kept the Gatorade G2 inflow constant all day and made it home in time to clean up all my finds. My next project will be to find a lapidary shop or enthusiast willing to slice and polish some of these ammonites for me at a reasonable price....I look forward to displaying a few from the inside out with their geodized chambers for all to see.