

FOSSIL COLLECTING REPORT

June, 2011

Daniel A. Woehr and Friends and Family

June 4, 2011: Collecting the Texas Drought

Lately I've been helping a college summer intern, Anthony Talluto, get his mind off Mechanical Engineering by indulging his interest in paleontology at some of the collecting sites I've visited and in some cases found on my own in Texas over the years. In the face of the current drought, it dawned on me late in the week that there was a particular stream with Pleistocene vertebrate potential that I've been wanting to explore for years but during periods of normal rainfall it presented kayaking conditions I wasn't quite comfortable tackling. More manageable current at this point in the summer brought this exploratory trip to the forefront, and it was one that afforded room for Anthony.

I prefaced our trip overview with my expectations...could be a bumper crop of mammoth teeth, could be a complete bust, could be a physically miserable trip on top of being a bust, or anything in between. Through a little planning, calculated risk taking, and willingness to accept a possibly empty catch bag, we were in proper mindset to tackle the venue.

And so we went about our excursion, slipping the kayak into the water and applying a little power to cover some distance. Our first gravel bar was large and presented nearly instant paydirt for Anthony in the form of a nice Bison molar. I grabbed about 3 inches of the base of a fossil deer antler on the same bar while Anthony countered on the next bar with a nice horse lower molar.



FIGS 1-4: Anthony kicking back at a Pleistocene/Eocene site followed by images of first the bison then the horse teeth he found there (Site 549)







Rapid success early in the game was unfortunately not a harbinger of our ongoing rate of success, but we still made some cool sporadic finds as we clipped off the miles and dutifully grid searched the bars and banks for signs of bones, teeth, stone tools, and/or old bottles. Paddle, walk, drag, wade, repeat.

Shimmering on the stream bottom under 3 inches of flowing water I spotted a horse lower molar and with the plunge of a hand I reduced it to possession. Later on I plucked a very old looking bison metapodial from the packed gravel of another stream cut. My final paycheck came in the form of a black lower horse molar which will soon adorn one of my Pleistocene Riker mounts.



FIGS 5-7: The author's Pleistocene deer antler base this and next 2 pages (Site 549)







FIGS 8-9: The author's Bison metapodial of questionable age (Site 549)



FIGS 10-14: The author's horse molars this and next 4 pages (Site 549)









No mammoth teeth, no flint tools....but Anthony made his first ever Pleistocene mammal finds, so it was a landmark day of collecting for him. It was nice for the pressure as guide to be off of me early on, hahaha! I was happy with my own finds as well, and explained to Anthony that large expenditures of fuel, time, and effort are typical of what is represented by each specimen in my collection. A little hard work makes us cherish our finds that much more. Now I look forward to putting him in a more lucrative venue for some other type of fossil on his hit list....perhaps ammonites???

June 11, 2011: Nautiloid Nonsense

And so Anthony, Weston, and I elected to hit the field early one Saturday, assembling on my driveway at 6:30 a.m. on a day that promised to be a bit balmy. Our focus on San Antonio area marine exposures commenced at a couple of sites that Anthony had found on his own during his first couple of weeks here in town – an impressive feat I must add. Even more impressive was that he was willing to guide us to his hard earned Upper Glen Rose formation (108 MYA) sites, a welcome gesture that tends to be richly rewarded by me in reciprocal terms.

Seconds after we stepped out of the truck, Anthony picked up his best ammonite to date, a 1.5 inch diameter *Paraengonoceras roemeri*, its flat keel and prominent sutures making it a wonderful find. In fact it is the best ammonite of its age that I've personally seen from the San Antonio vicinity, and very rare at that. In fact it got the attention of a few ammonite experts as far away as Europe.



FIGS 15-19: Anthony's first Texas ammonite, *Paraengonoceras romeri* this and next page (Site 550)



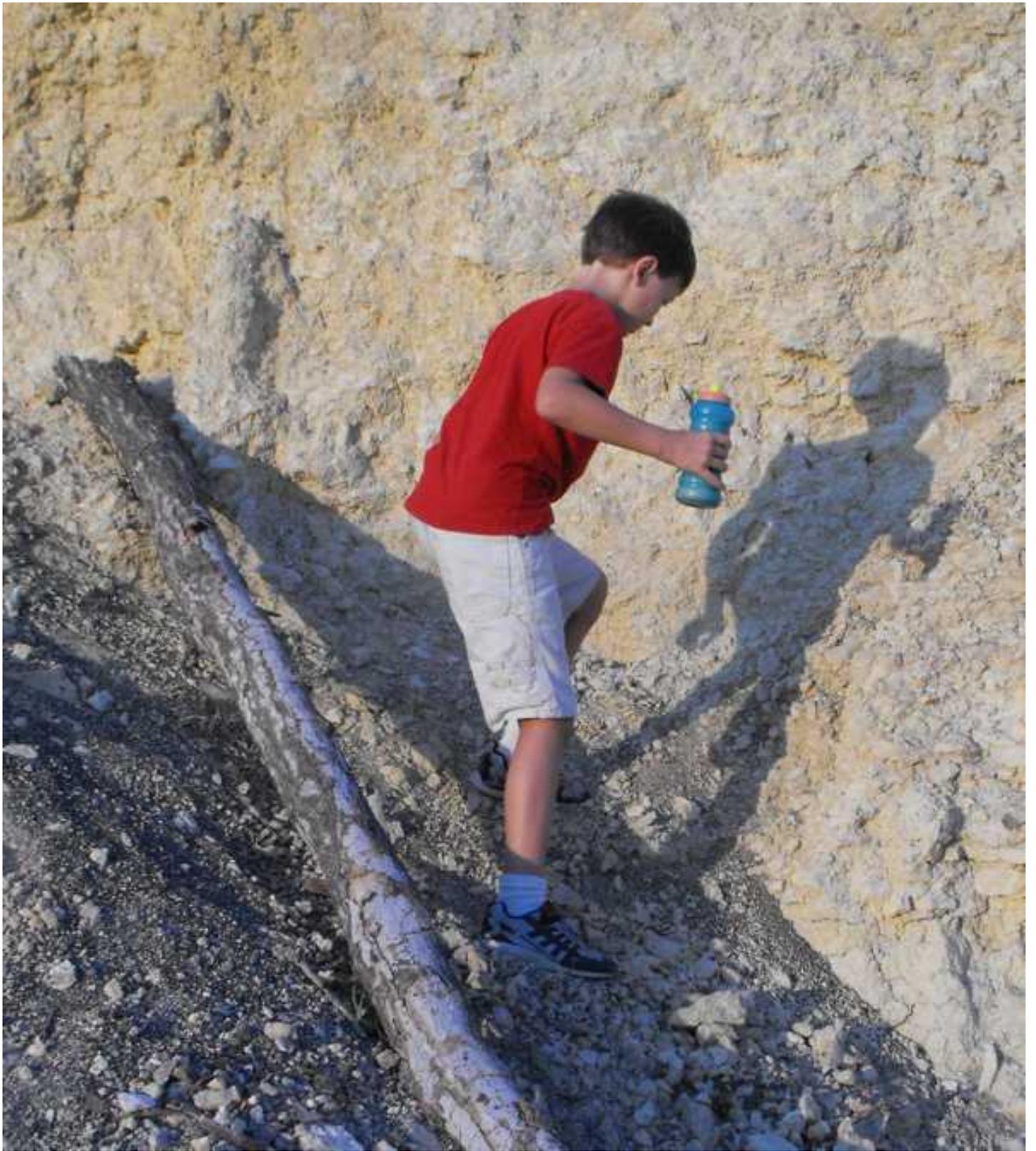








FIGS 20-27: Anthony and Weston perusing Glen Rose/Walnut contact finding *Loriolia* echinoids and gastropods this and next 6 pages (Site 550)













Let's talk about age again, as the fossils found at Anthony's sites have left me in a bit of a quandary. The fauna is dominated by well preserved *Loriolia rosana* echinoids, and at the second site Weston found a superb *Coenholectypus planatus* echinoid. Anthony had found a nice *Phyllacanthus* "bowling pin" spine there on his last trip. Both sites faunally exhibited cues of both Upper Glen Rose as well as Walnut formations. The preponderance of *Loriolia* plus the *Phyllacanthus* suggested Glen Rose, but the inflated preservation of the *Coenholectypus* suggested Walnut, however *C. planatus* was more scarce than at most Walnut sites I've visited in South Texas, and the index fossil of the Walnut, the oyster *Ceratostrean*, was absent from both sites. So I'll conclude by stating that these strata represent something near the contact of Upper Glen Rose and overlying Walnut, but probably Glen Rose.



FIGS 28-30: Young Weston showcasing his *Coenholectypus* and *Loriolia* echinoids this and next 2 pages (Site 551)





Off to a good start, it was time to drive and scout streams and area construction sites. This portion of the trip proved to be a bust, but the air conditioned climes of Anthony's truck served to assuage our disappointment.

Eventually we weaved our way to the fabled Corsicana Formation (68 MYA) and crawled for leftovers missed during our last post rain feeding frenzy. Finds were slow in coming but as they say, "slow and steady wins the race". All 3 of us began to scratch together a clutch of *Hemiaster bexari* echinoids, then just as I relayed to Anthony that we were on a flat where I had found shark teeth and verts in the past, I promptly found one of each.



FIGS 31-33: Weston and Anthony searching the Corsicana Formation followed by images of two *Hemiaster bexari* echinoids in situ next 2 pages (Site 248)







FIGS 34-37: The author's unidentified shark vertebra in situ and lightly prepped, this and next 3 pages
(Site 248)







Moving to another site nearby, we worked the fringes of where Brian, Weston, Allison, and I had worked a month prior, and with measurable results. Again a few *H. bexari* came to hand, as did one nice little *Plesiaster americanus* echinoid, always a welcome find. Anthony and I both found partial *Enchodus* teeth, then I concluded my efforts with an exclamation point in the form of a superb example of the nautiloid *Eutrephoceras* c.f. *planoventer* followed by a nice shark tooth that could very well be *Serratolamna* or something similar.



FIGS 38-41: Weston's Corsicana formation finds including echinoids *H. bexari* above followed by 2 views of *Sphenodiscus* ammonite fragment and gastropod *Turritella vertebroides* this and next 3 pages (Site 349)









FIGS 42-44: Corsicana formation shark tooth *Serratolamna* sp. in situ this page, same tooth flanked by shark vert, partial *Enchodus* tooth, and phosphatized *Baculites* c.f. *columna* section next 2 pages (Sites 248 and 349)







FIGS 45-47: Corsicana formation nautiloid *Eutrephoceras* c.f. *planoventer* in situ this page and as prepped next 2 pages (Sites 349)







FIGS 48-50: Corsicana formation echinoid *Plesiaster americanus* this and next 2 pages (Sites 349)







FIG 51: Corsicana formation echinoid *H.bexari* in situ (Sites 349)



FIG 52: Same Corsicana formation echinoid *H. bexari* as prepped top left above two partial crab claws *Dakoticancer australis* to the right of 4 unidentified gastropods (Sites 349)



FIG 53: Young Weston slakes his thirst on a 100 degree day with something from the cooler.....

Anthony had been up till 2 a.m. playing poker with his dad and friends, so by mid afternoon the 100 degree F climes had left him with enough umph for one more site. Pounding cold drinks as we hiked down to a parched stream bed, we began our search of the Pecan Gap Formation (78 MYA), its beige to gray, fine grained chalk being somewhat stingy with fossils, true to form for this formation.

Before long we began seeing *Baculites taylorensis* (straight ammonites) issuing from the bedded chalk as well as in the rolled rubble. Anthony found a shark tooth blade in one of these boulders, something I don't see often in this formation.

"Dad I found an ammonite!" Weston had in fact found a *Eutrephoceras* nautiloid poking out of a boulder that we quickly reduced to possession. Good eye, kid.

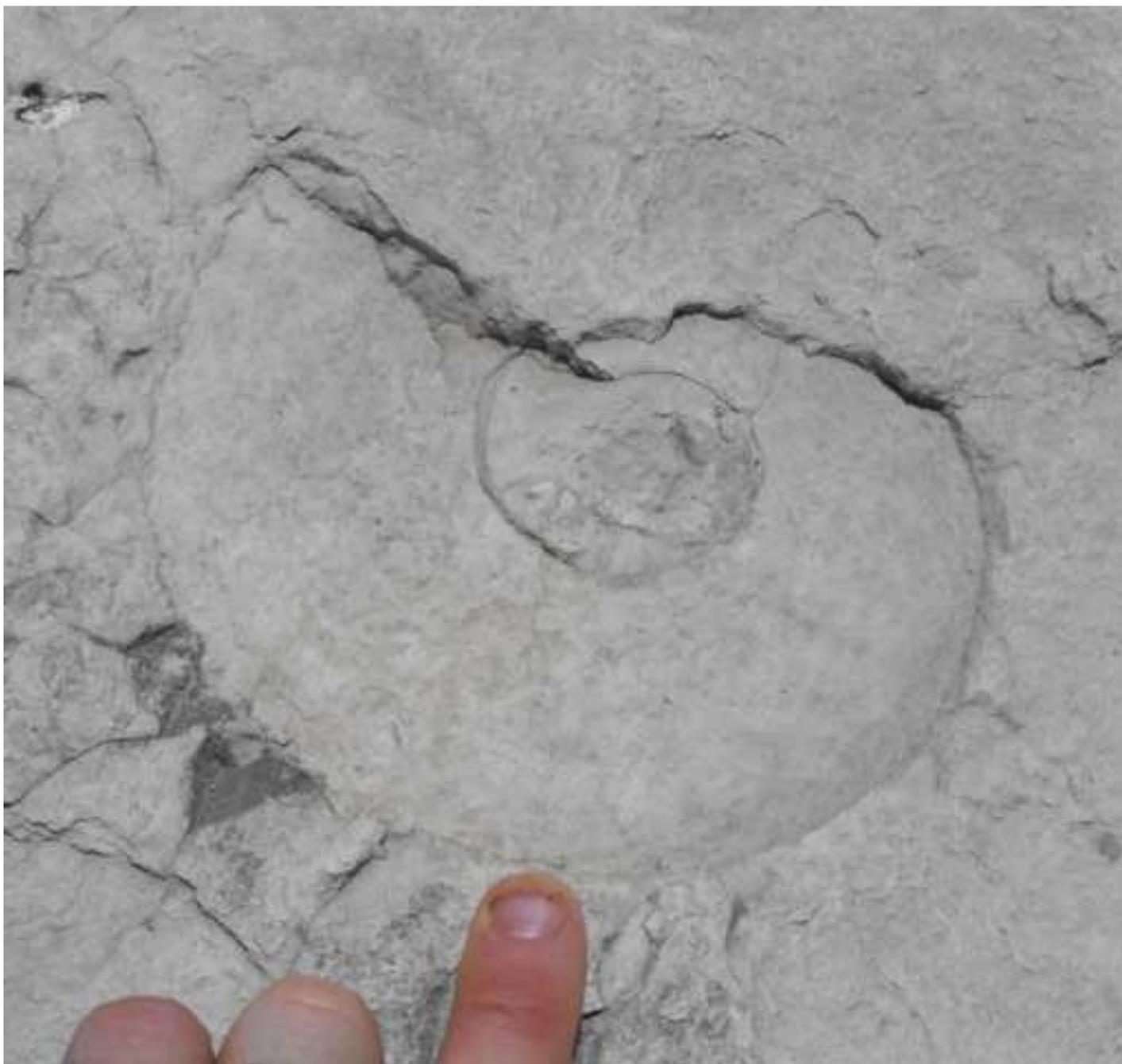


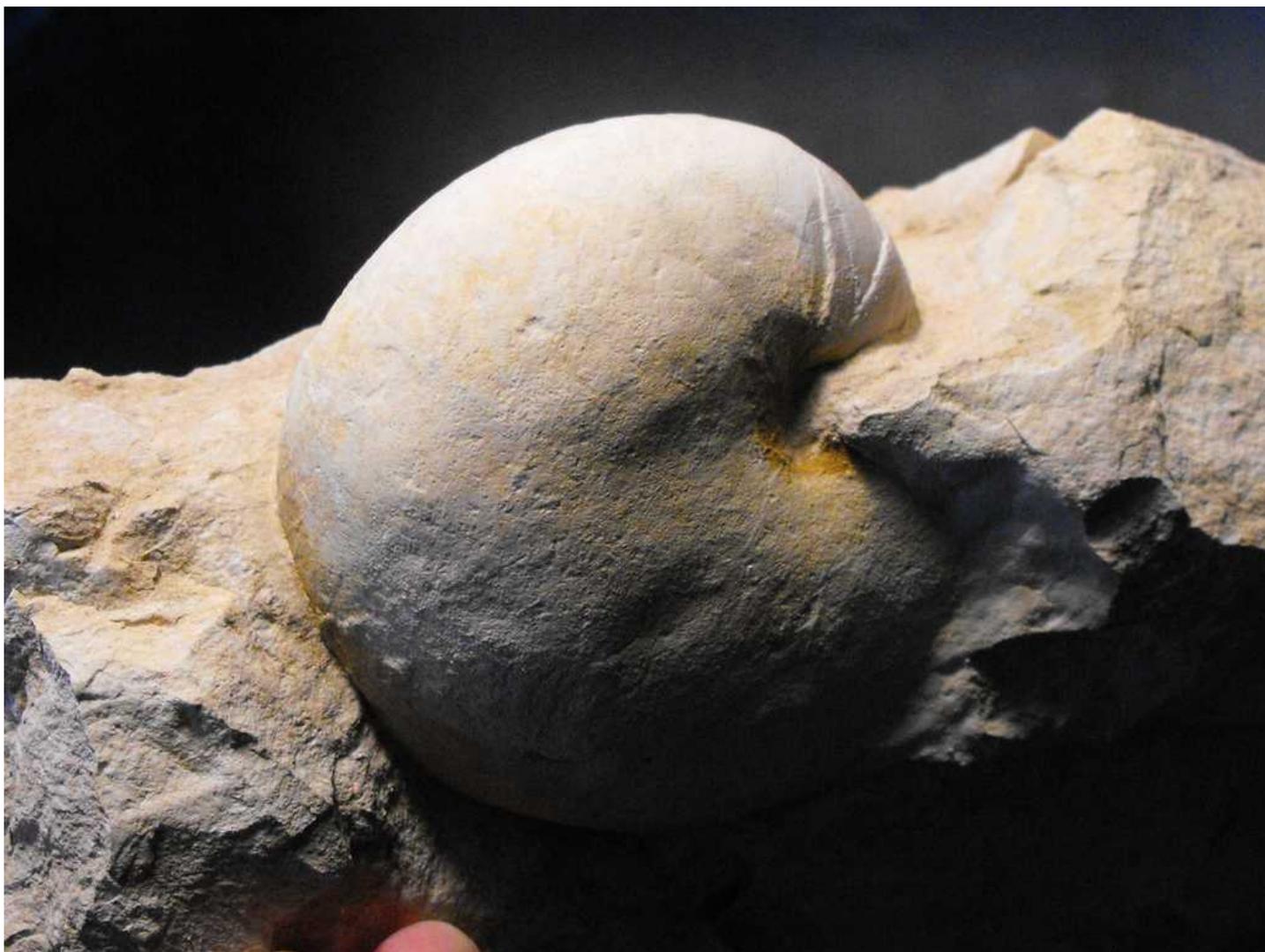
FIG 54: Anthony's external ammonite mold in a Pecan Gap Formation creek bed (Site 169)



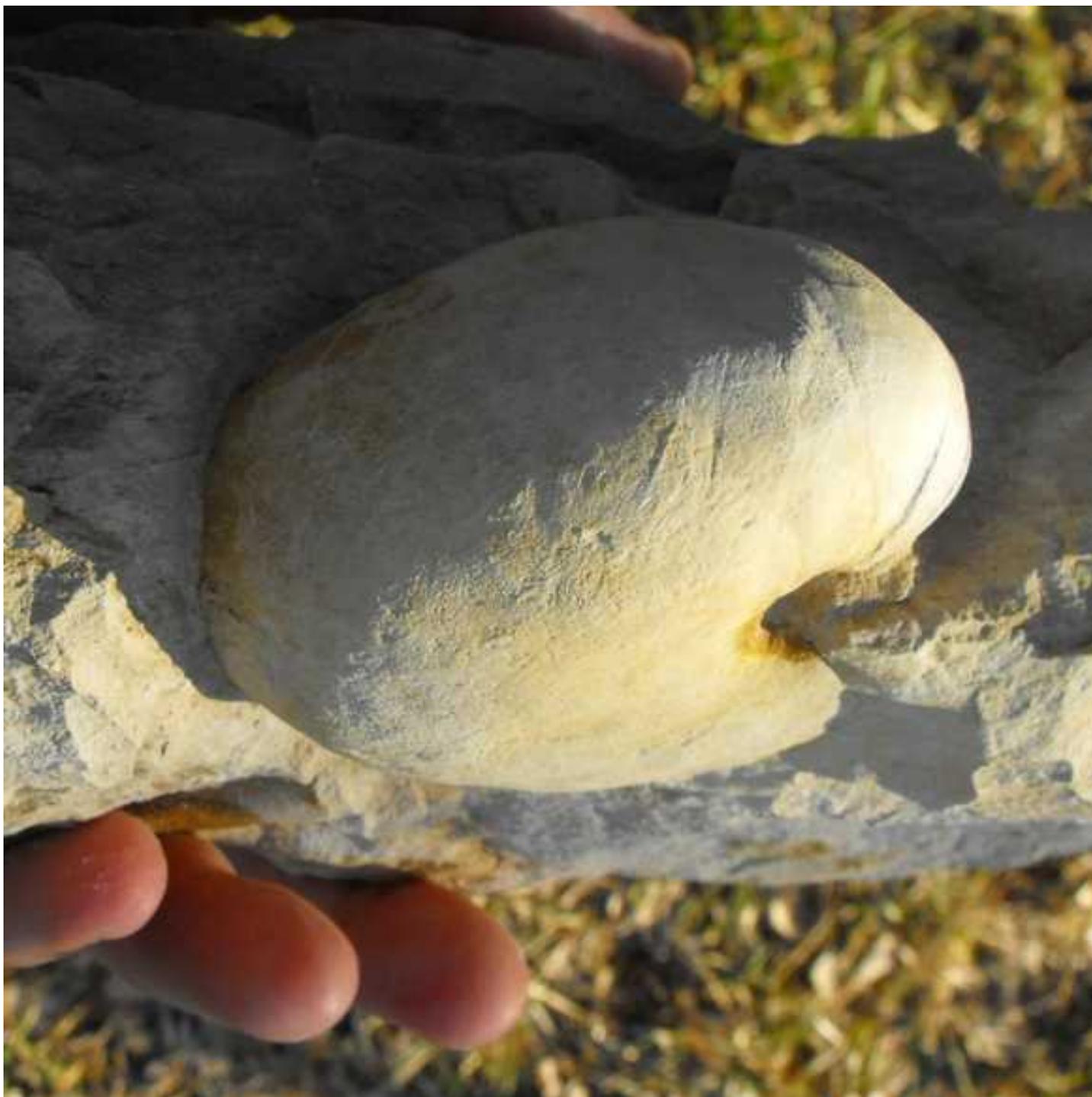
FIGS 55-60: Weston's 2 Pecan Gap Formation creek *Eutrephoceras* sp. nautiloid finds in the field and as prepped this and next 5 pages (Site 169)











Then he ran ahead again...."Dad I found another ammonite!" The kid doesn't cry wolf...this was hands down the best nautiloid I've ever seen in the Pecan Gap. Most are compressed in form but this *Eutrephoceras* was fully inflated in matrix with a few *Baculites* thrown in for character – prepped it is now quite the showpiece, and by this time Anthony had noticed the trend of the kid running ahead and finding all the good stuff! I plan to remedy this in the near future by taking everyone to a spot where each can haul out as many ammonites as he can physically carry...even if the kid runs out front.

June 12, 2011: Coastal Bend Bones

On Sunday I rounded up the women and children and hauled them to the Coastal Bend for a little beach fun, sunburn, and seafood. On the way back we stopped at an inland pit that I drop by from time to time in search

of fossil sand dollars, bones, teeth, shells, artifacts...staying in contact with the landowner, I usually have some idea when recent digging activity has been deep enough to possibly dredge up some goodies.



FIGS 61-63: Two pieces of Pleistocene tortoise plastron *Geochelone* sp. from the Texas Coastal Bend this and next 2 pages (Site 334)





This stop wasn't particularly productive, but I did grab two scraps of *Geochelone* land tortoise plastron, plus Brett and Weston enjoyed landing a few Pleistocene shells and barnacles for our whopping 20 minutes of effort. For once I think I managed to lead a paleo excursion of a duration and intensity level that we all agreed was perfect...now if we'd only kicked up a few mammoth teeth....

June 25, 2011: Echinoids and Ice Cream – Birthday Bash with the Boys

And so this fossil hunter has picked up another ring around the trunk over the weekend, 41 total at this point. My girlfriend Brett helped me kick off a killer birthday weekend by taking me to see Jerry Seinfeld live at the Majestic Theater in downtown San Antonio Thursday night. On Friday I had a college buddy, Dave Drerup, roll into town on business and stay at my house, then join young Weston and me for a quick fossil hunt on my birthday Saturday morning.

Wolfing down a few tacos each en route to some Glen Rose formation sites north of San Antonio, we began our adventure, having chosen that area to work since nearly 2 inches of rain had refreshed things a few days prior. Dave and I dropped onto all fours to give the ground a good look while Weston was content to dig himself a hole and play in the dirt.

Dave is relatively new to fossil collecting but proved to be a quick study; we each grabbed a cool little *Salenia* echinoid soon after we dropped to the ground 10 yards apart. And so we spent the next hour crawling and scanning the ground, grabbing little treasures here and there. The bulk of our finds were diminutive *Salenia* echinoids, but we each laid hands on cool little *Goniopygus* echinoids as well, all echinoids perfectly preserved.

Dave also added a nice *Paleopagurus banderensis* crab claw to his take, and was enamored with the little star shaped crinoid columnals *Isocrinus annulatus*. We elected to bail out without spending too much time at the site and I'm sure we left plenty of specimens behind...we wanted to hit another site and prospect for others before Weston's championship swim meet in the early afternoon.



FIGS 64-65: Glen Rose formation echinoid *Goniopygus c.f. texanus* this and next page (Site 161)





FIGS 66-68: Glen Rose formation echinoids *Salenia* sp. this and next 2 pages (Site 161)







FIGS 69-70: Glen Rose formation echinoids *Salenia* sp. and *Goniopygus c.f. texanus* and partial crab claw *Paleopagurus banderensis* found by Dave this and next pages (Site 161)





FIGS 71-73: Glen Rose formation echinoids *Salenia* sp. and *Goniopygus* c.f. *texanus* along with crinoids columnals *Isocrinus annulatus* this page, close up of *G. texanus* next page (Site 161)



Next we dropped onto our final Glen Rose site, this time in the *Salenia texana* zone. Again the rain helped, and I took 4 or 5 nice *S. texana* echinoids while the other guys enjoyed grabbing nice bivalves, gastropods, and other marine fare.



FIGS 74-75: Glen Rose formation hermit crab claw *P. banderensis* this and next page (Site 445)





FIGS 76-78: Glen Rose formation echinoids *Salenia texana* this and next 2 pages (Site 445)







FIG 79: Glen Rose formation echinoids *Salenia texana* and one *Palhemiaster comanchei* (Site 445)

Our site prospecting that followed resulted in some high percentage leads that may pan out at a future date. We pulled the plug on our adventure at that point, Dave departed for Houston, and I ran Weston to his swim meet.....in the end Weston's team won the division championship over the other 4 teams by a slim margin, netting him his first ever trophy (unless you count trophy fossils!), making The Old Man very proud on this very eventful birthday. The day was rounded out in a gastronomic sense with home made ravioli and Italian wedding cake courtesy of lovely Ms. Brett.

June 26, 2011: Extended Birthday Bash Takes to the Road

After 90 minutes of sleep I slapped my alarm at 12:30 a.m. in anticipation of a 1 a.m. rendezvous with friends and fossil enthusiasts on my driveway, namely members of The Fossil Forum Anthony Talluto and Brian Evans, both with visions of ammonites dancing in their heads. We were North Texas bound, sights on the Duck Creek formation as I had whetted appetites with promises of a slam dunk take of *Eopachydiscus* and *Mortoniceras* ammonites garnished with a few *Macraster* echinoids.

We had a good arrangement this trip...I would provide site info, Brian provided wheels and fuel, and Anthony would be our highly motivated young mule. Weston offered a heaving helping of field guidance based on his extensive experience.

Hours and hundreds of miles later we hit a snag...my "slam dunk site" proved to be walled in by a garrison of poison ivy, and no fossil is worth putting my kid through all that. So we conceded defeat on that front and my buddies seemed a bit worried.....Brian joked his way through the tension while Anthony fell silent, certainly realizing that his opportunities for ammonites could be few on his summer internship, while Weston taunted me from the back seat with epithets including "epic fail !"

Pressure was on the fossil guide at this point....so we returned to a creek that Weston and I had hunted successfully a couple months back, knowing that it had flooded once in the meantime, and we deployed our canoes for a deep push down this stream well past where I had ever hunted. In the end a back handed Plan B may have turned out to be more lucrative than Plan A, with less effort expended.

And so we pulled up to the stream of choice, jumped out of the vehicle, and prepared to deploy equipment down in the stream bed...until we noticed a shotgun toting figure emerge from the brush bearing down on our position. I was quick to approach him and engage in conversation. I thought he was going to ask us to leave, but it turned out he was squirrel hunting on the property, which I had always thought was public. We told him of our fossil quest and he mentioned "a few big round ones on the creek bottom". Spirits soared amongst our group.

I really wish I had gotten a photo with this gentleman. Camouflaged vest, no shirt, a bunch of keys worn as a necklace, weathered 12 gauge Springfield pump gun with finger grooves in the grip, long gray mutton chops, and a well ventilated smile which he threw readily when regaling the day's success of bagging a squirrel or two; all the while gesturing with oozing bloody arms scraped by thick riparian brush....he was truly a full contact outdoorsman with whom I could relate. His gunstock had long ago lost its glossy luster and the bluing was worn thin on the barrel and action. Being a *jaeger* myself, conversation comes easy with other hunters. We closed our dialog with a mutual expressed interest in wild hog hunting, then went our separate ways.

As we dropped our canoe and kayak into the water I reminded Anthony and Brian , "Remember you guys will be carrying out your own stuff!" Weston and I had a few ammonites to our credit at home already, so this trip was more about the other guys scratching an itch, and I was content to play cameraman and let them take lead. Young Weston however enjoyed waving his expertise like a flag, and had a tendency to run out ahead of the other guys and call out finds, then bark out who got to keep them....I had to call him back behind the front line a few times to let the other guys experience the full thrill of the hunt.



FIG 80: Brian Evans takes on an *Eopachydiscus marcianus* ammonite (Site 73)



FIGS 81-82: Weston and an *E. marcianus* ammonite he spotted underwater plus two more he began to excavate in the creek wall (Site 73)





FIGS 83-84: Anthony followed by Brian going head to head with more Eos (Site 73)



Our guests both spotted ammonite keels jutting out of the Duck Creek formation (102 MYA) a short distance from the vehicle, and we opted to leave them for extrication on the return leg of the trip. Pressing onward, young Weston called out a big *Eopachydiscus marcianus* ammonite underwater that everyone else had walked by. Heads turned backward and from the looks on some faces I could almost hear the thoughts....."OK you little @%\$!*#!"

However I promised the guys that a creekbed exposure a short distance ahead would probably be rich in ammonites, and there would be enough for us all. I could almost see their canoe on plane as it was dragged by a rope behind speeding feet navigating the shallows. Of course Weston was near the leading edge of the assault calling out his finds and petitioning me to hurry up and beat them out as quickly as he found them.

As the ammonite frenzy crescendoed full swing I finally reached the exposure and spotted a nice 15 inch Eo in the middle of the creek that had escaped scrutiny. With a few whacks it was freed from the creek bottom and laid on the bank for later pickup. Weston countered with a beautiful *Mortoniceras* with the rostrum largely intact...a fragile yet spectacular find.



FIGS 85-86: The author with his biggest Eo of the day found loose in the middle of the creek plus one more that was beaten out of the creek bottom next page (Site 73)





FIGS 87-88: Anthony and Weston's collaborative 22 inch Eo this and next page (Site 73)





FIGS 89-90: Brian and his prize Eos this and next page (Site 73)





FIGS 91-92: Weston's Eo this page with a close up of a fish vertebra trapped in matrix attached to the ammonite next page (Site 73)





FIGS 93-94: Two of the author's Duck Creek Formation Eos this and next page (Site 73)





FIGS 95-100: Weston's *Mortoniaceras* sp. ammonite with rostrum intact this and next 2 pages followed by more Morts (Site 73)











FIGS 101-102: Weston's *Macraster* sp. echinoids (Site 73)



Now for the best part: the rest of this creek would be virgin territory which I had never hunted to date. We waded and dragged boats several hundred yards before encountering more limestone benches, bluffs, side creeks, and boulder bars, all of which gave up still more ammonites, as did the creek bottom for those willing to concentrate on peering through the glare and ripples.

I paddled through a deep pool, doing my best to outpace Weston as he laughingly tried to grab the kayak and pull it backward....in the process I landed on a shallow midstream gravel bar with a huge 21 inch Eo sitting right in the middle. We had lost Brian as he dragged the bigger canoe behind, so I dropped my business card on the big ammo for Brian to see (hehehe) while the rest of us charged up a side creek.

Again Weston sort of turned this into a foot race with Anthony, so I asked the lad to sit with me while I beat his finds out of the bedrock, affording Anthony a look ahead at virgin ground. 15 minutes into Weston's 15 inch Eo, I heard him shout out from ahead, "Hey Anthony there's a HUGE ammonite here and you can have it!" And Anthony found himself in no position to look a gift Eo in the mouth. Slightly rough on the weathered,

exposed side, Anthony invested some hammer blows to release this specimen from the bedrock, revealing 22 inches of paleo perfection on the protected side.

This was perhaps the best Eo of the trip and had special meaning on several levels. It represented the climax of Anthony's anticipation in spending the summer in Texas, attainment of the goal he set for himself, a magnificent trophy rivaling or exceeding any of my own, and at the same time it showed selfless generosity on Weston's part. When I asked Weston about it later, he said "Well we have some good ones at home and Anthony hasn't found any like that before". Aside from that, the best part was that I wouldn't have to beat it out or carry it!

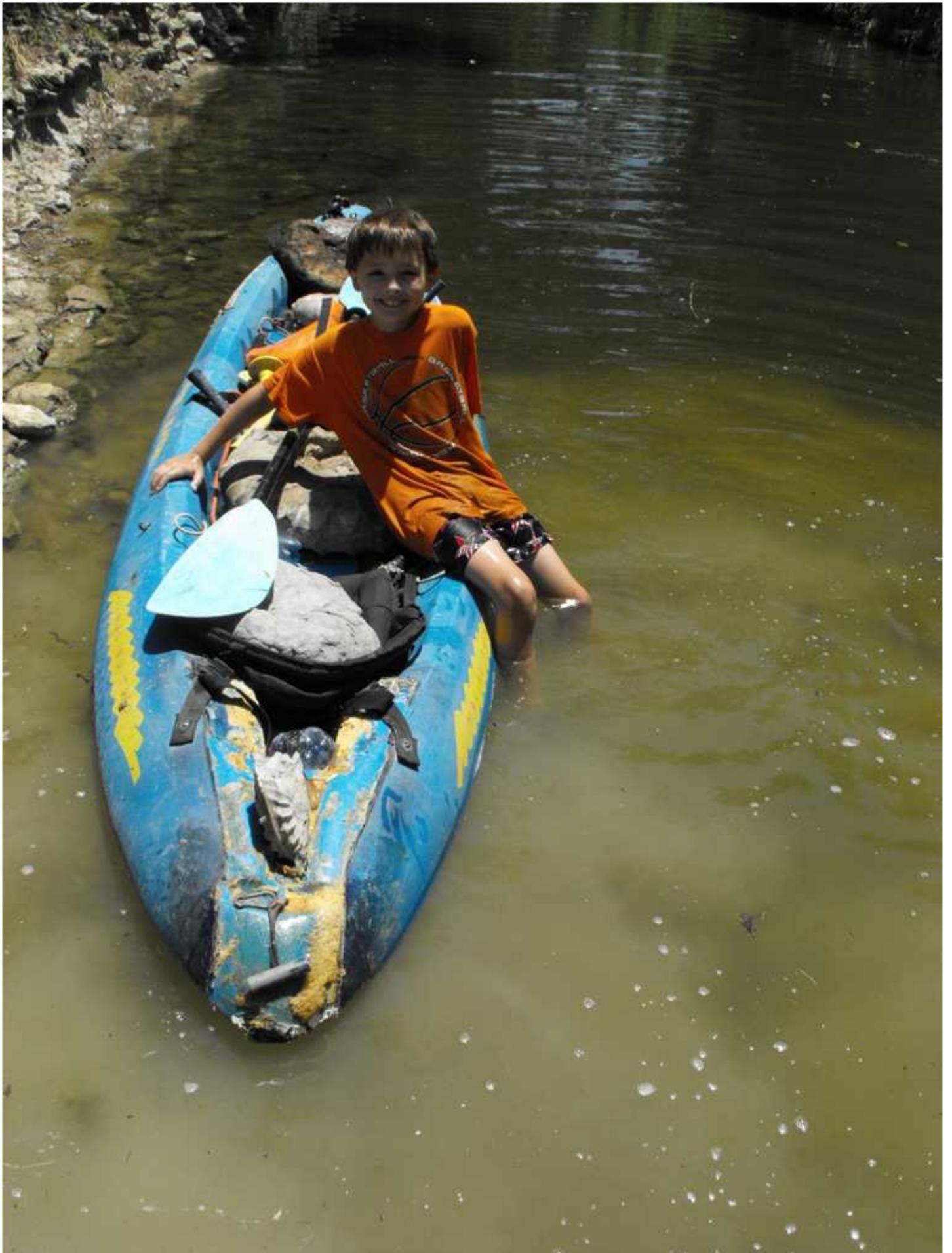
Weston was happy to grab a few smaller ammonites and *Macraster* echinoids as we finished up in the side creek. Silence from the main creek channel was no indication of Brian's productivity. In fact he was slaying huge Eos and stacking them like poker chips. One 20 inch whopper Eo he spotted underwater sported a 3 inch Mort stuck near the aperture, the specimen virtually free of matrix, auto prepped by Ma Nature herself – his best find that day and a spectacular trophy by all standards.

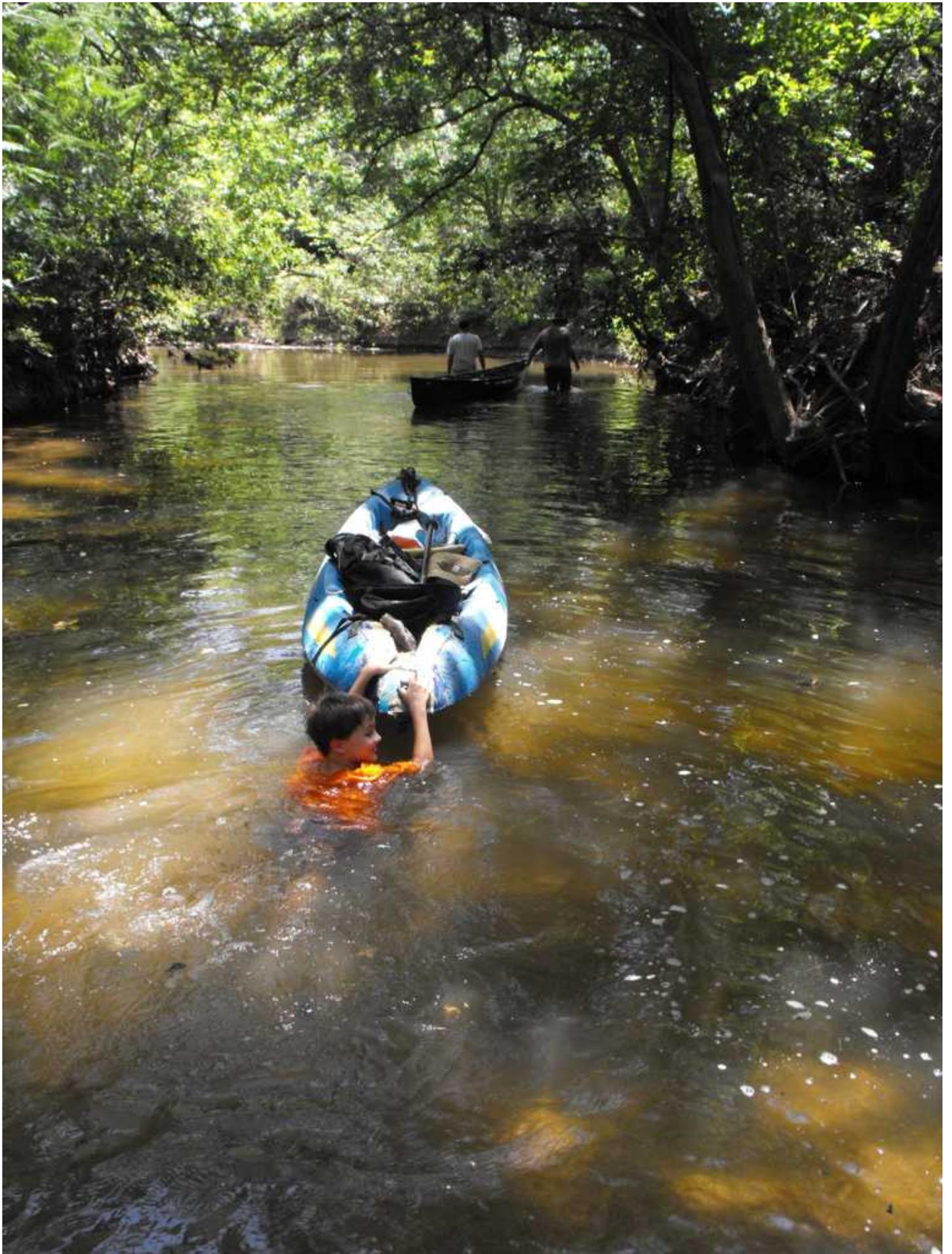
And so we pressed farther along the stream channel, acquisition mode winding down as limestone benches gave way to bars of gravel too small to hold "respectable ammonites"...and now was where the true amusement began from my perspective. We reversed course and began our trek back to the van, picking up stacked ammonites all the way. Weston and I had been fairly abstemious as evidenced by our manageable take of ammonites....but I knew the other guys would be unable to resist a massive take, and for that reason I made sure they were in the same boat, mua ha ha!

With each shallow shoal and waterfall another stack of Eos and Morts hit the bottom of their boat until subsequent shallows required portaging of many ammonites, some exceeding 100 pounds each. I've been through this drill on my own too many times in the past and too recently...I wanted nothing of it!



FIGS 103-105: Wrapping up our trip, loaded down just a bit (Site 73)





We all felt pretty depleted as we approached our take out, and we then remembered we had to beat a few more Eos out of the bank...my hammer blows weren't all that accurate by this point and I was relieved to find that the specimens I was working on weren't complete, so I was able to abandon that work detail before being too far invested.

Uphill...ugh! 100F climes took their toll as we shuttled finds up the hill. 3 of the ammonites required 2-3 people each to get them uphill. There was no graceful way of doing this so we experimented with different methods. Anthony bear hugged his masterpiece while I followed behind him with two hands in his back to make sure he didn't fall back downhill. Somehow, wearing flip flops, he managed to make it up the hill without killing himself although there was a close brush with bodily maiming.

With finds stowed safely in the back of the sagging van, boats lashed to the roof, we all stared at each other with sunken eyes to see who would assume driving detail at this point. Electrolytes were chugged and in some cases chased by shots of 5 Hour Energy. Weston beckoned me to the back seat, and once we all threw down subs and drinks, Anthony and Brian traded driving duties while Weston and I melted into our seats slack jawed, open mouthed, and snoring.

Special thanks to Brian and Anthony for their spirited camaraderie, patience when we were thrown a serious curve ball, confidence in their guide, an affordable trip, their tenacity in getting the finds back to the vehicle, and most of all, letting me slumber in the back seat undisturbed for 6 hours on a Sunday night.....