

FOSSIL HUNTING and FISHING REPORT: OCTOBER 2006 DANIEL A. WOHR AND FRIENDS

October 1, 2006: Walnut Formation

After meeting lukewarm success the prior month on a self guided collecting trip in the Walnut formation (105 MYA) in Bell and Coryell Counties of Central Texas I realized that a more targeted approach was in order. One of the luxuries of serious fossil collecting is that you make friends with good folks who know something you don't. With selective sharing of site information you can enjoy some symbiotic back scratching. I elected to be scratched first, and long time collecting buddy Robert Bowen was my guide for the day. We hit a number of small sites that day many of which he had found on his own. While I tend to indulge wholeheartedly in the sites I find on my own, standard operating procedure to sites I'm shown is to enjoy them for the day, not deplete them in the future if I elect to return to them at all, and keep locality specifics to myself. Working in this fashion I've been able to enjoy good trips with a number of buddies without stepping on any toes.

At any rate, our first site was an eroding pit that we entered around daylight. Amidst the broken down clay and countless oysters were cool little solitary *Parasimilia* corals and echinoids *Salenia mexicana* in good supply. Good gloves and gel filled knee pads are a definite asset in negotiating this terrain. I believe I took about 20 good *S. mexicana* specimens in an hour while Robert may have doubled that number. They ranged from dark brown to dark gray and add to the color spectrum of my echinoid collection.



FIGS 1-3: Walnut formation fossils including *Salenia mexicana* (pentagonal apical cap) and *S. leanderensis* (round apical cap) and coral *Parasimilia austinensis* (Site 351)

The second Walnut site was a small flat area which looked like graded gravel from as close as 10 yards away. However when crawling around it was readily apparent that we were on top of countless fossils most notably very well preserved echinoids *S. mexicana* in an excellent state of preservation. At times they could be had at the rate

of one per minute. While Robert quite expectedly doubled my dozen echinoids, I lucked into a cool gray fish or reptile tooth gleaming in the sunlight. Robert remarked that I had found one of the largest and best preserved of this type of tooth than he's seen in his years of extensive collecting in the Walnut. Still, he picked up a nice pycnodont tooth (palatine crusher fish tooth) as well as a perfect little *Leptostyrax macrohiza* shark tooth to boot.



FIGS 4-9: Unidentified Walnut fm fish/reptile tooth above, corals *P. austinensis* and echinoids *S. mexicana*, *S. leanderensis*, and *Heteraster* sp. below (Site 352)

From there we hit an excavated hillside where our mutual friend Marc de Vries used to search for echinoids before moving back to Holland. We spent 15 minutes there and were lucky to add 2 or 3 regular echinoids *Phymosoma texanum* to our take. Another nearby excavation began with a slow start, but before long Robert was finding partial *P. texanum* specimens while I found a *Heteraster* echinoid with some spines still attached. Just as I began losing confidence in the layer I was searching a bit of bumpy symmetry caught my eye. This *P. texanum* specimen was soon followed by 5 more like it. I couldn't complain about that.

A stomp through an area creek was next on our list. In the distance we could see cream colored nodular limestone overlying a blue-gray clay layer. The latter tends to present the better preserved echinoid specimens in the formation, so off we went. While the creek bed was composed of a hard, massive cream colored limestone layer, I elected to search a softer clay layer a little higher up the bank and was soon rewarded with a nice *P. texanum* followed by another one farther upstream and uphill. Robert got in on the act and grabbed a couple for himself as well.



FIG 10: Walnut fm echinoids *Phymosoma texanum* (Sites 353, 354)



FIG 11: Walnut fm echinoids *Phymosoma texanum* and *Heteraster* sp. (Site 355)

The grand finale was a hard to access hillside with deeply weathered ravines in the broken down gray Walnut clay. Robert quickly found a crab leg and a *S. leanderensis* echinoid while I landed another small *P. texanum*. While Robert was calling out *Salenia* as he found them, I slowed down a bit when I saw weathering pyrite as vert material often is found in those general areas. Bright sun glanced off shiny enamel and caught my eye and my biggest and best Lower Cretaceous shark tooth was reduced to possession. This *Cretolamna* sp. specimen is a beautiful gray with the entire root and side cusps intact. I grabbed another *S. mexicana* before we both loaded up on pristine *Heteraster texanus* echinoids. While moving downhill I lucked into a couple nearly complete *Engonoceras pierdenale* ammonites as well.



FIGS 12-15: Walnut fm shark tooth *Cretolamna appendiculata* and echinoids *Heteraster* sp. (Site 356)



FIGS 16-20: Walnut fm echinoids *Heteraster* sp. above, *S. mexicana* and *P. texanum* middle, ammonites *Engonoceras pierdenale* below (Site 356)

A walk around a wooded hill top began to suggest a dud site especially after combing the eroding ravines and finding nothing. But a chance glance down brought yet another *P. texanum* specimen into view and into my pocket.

Over the course of the day we found keeper fossils essentially everywhere we went. Even with our combined experience this is not always the case so we certainly enjoyed the moment. After such a great day of hitting

exploratory as well as confirmed productive sites it is definitely my turn to do the back scratching next time. That will all be detailed later in the month.

Rush Hour Finds



FIGS 21-24: San Antonio area finds including Glen Rose echinoid *Loriolia rosana* above (Site 27) and shark teeth *Squalicorax falcatus* and *Ptychodus anonymus* below (Site 78)

October 6-7, 2006: Returning to my Paleo Roots

With a buddy getting remarried in my home town of Cincinnati, OH I made a wonderful weekend trip of family, friends, and fossils. I once again had the opportunity to search the area for abundant and well preserved

Ordovician marine material. Going home always evokes deep feelings of nostalgia for me, filling my mind during the plane ride with memories of friends, family and experiences of long ago. While I never mastered the Cincinnati paleo scene as a kid, plying the gray limestones and shales of the area allows me to reconnect with the little fat kid with thick glasses. It seems ironic that finding things 440 million years old makes me feel just like the 10 year old wide eyed kid from 1980.

I diverted my dad to a fossil site in Indiana Friday morning after leaving the airport, but my “shortcut” managed to send us down 3 wrong turns. Finally we arrived at the road cut where I had collected 14 *Flexicalamene meeki* trilobites in an hour last April. It was discouraging to find a stampede of foot and knee pad prints all over the broken down clay layer I had planned to target, but I strapped on my knee pads and got to work regardless. The first half hour only turned up trilobite heads, tails, and half specimens but finally I found a perfect enrolled *F. meeki* hiding in the clay followed by another enrolled flattened specimen. I picked up some nice brachiopods, bivalves, and gastropods before moving across the road and working same layer which gave up another good semi enrolled trilobite. Seeing Dad napping in the car was my cue to wrap it up and get on with the weekend.



FIG 25: Cincinnati (Ordovician) trilobites *Flexicalamene meeki*, Waynesville fm (Site 291)

My Saturday morning excursion was to another Cincinnati area road cut which gave up some decent cephalopods and partial *Isotelus* trilobites back in April. These same fossils were my initial focus at the site and I began finding good cephalopods almost immediately. My focus shifted however to edrioasteroids once I began seeing obscene numbers of *Rafinesquina* brachiopods. “Edrios” sort of resemble small, primitive starfish which attached themselves to the shells of certain bivalves, with *Rafinesquina ponderosa* being a favored host.

While I never found my first edrio, I lucked into a very nice crinoid crown *Pychnocrinus dyeri*. Crinoids too are echinoderms or relatives of sand dollars, echinoids, and starfish. They are composed of a holdfast or “root” for attaching to the ocean bottom, a “stem” which grew out of the holdfast, and a “crown” on top of the stem. Crowns contained the crinoid’s feeding and reproductive apparatuses which included a set of arms with delicate fanning flagella to help gather nutrients from the water and guide them toward the mouth. While stem fragments are common, crowns are harder to find and are highly sought after because of their detail and beauty. Usually crowns are found in areas of prolific “logjams” of stems where a rapid depositional event buried and wiped out an entire community of crinoids. Since I was only seeing isolated stem columnals I was quite surprised to find an isolated crown in an area where there weren’t loads of stems. Call it dumb luck, but I finally laid hands on my first Ordovician crinoid crown, bringing to fruition an aspiration first envisioned as a kid in 1980. This specimen is missing some arms but has several intact. The crown plates are all in place and this is a prized find in my Ordovician collection. I’m looking forward to my weeklong Thanksgiving trip turning up more prized finds.



FIGS 26-29: Ordovician crinoid crown *Pychnocrinus dyeri* above, orthocone cephalopods bottom left, brachiopods *Rafinesquina ponderosa*, *Lepidocyclus capax*, and *Platystrophia clarksvillensis* below (Site 292)

October 15, 2006: Playing Host

While I was only available to collect on Sunday, buddies Robert Bowen and Adam Armstrong came down to my area Saturday to hit some of the sites we wouldn't have time for on Sunday. These were all sites in the Glen Rose fm (108 MYA) and echinoids were the main focus. Success was somewhat mixed with one site giving Robert a big bag of *Salenia texana* echinoids, the next site producing very few small *Salenia* apparently due to recent visits by other collectors, and a welcome surprise of a new site that Robert spotted en route to my house in the fading light. The guys hit this last site, a weathering construction dump from the *Salenia texana* zone, in the last hour of light and found a bucket load of *Salenia*.

The guys showed up at my house that night in time for buffalo/wild pork burgers and a lengthy look at my Riker mounts from local Glen Rose, Escondido and Corsicana exposures. We were on the road by 6 a.m. and on site at 7:30 after signing in at a pit in the Escondido fm (66 MYA). The other guys had never been to this clay pit so I knew they'd get a kick out of the abundant shark teeth. The site had had several rains to weather since last visit so the teeth were out in large numbers. Within a couple hours we must have each had literally hundreds of *Serratolamna serrata*, *Ginglymostoma lehneri*, *Squalicorax pristodontus*, *Rhombodus binkhosti*, and *Enchodus ferox* teeth with *S. serrata* dominating our take. We even got a few oddball reptile teeth and Robert found a micro *Ptychotrygon* sp. ray tooth, prompting him to bulk sample 50 pounds of matrix from a localized gritty lens within the red clay. Adam found several associated pieces of turtle plastron which should reconstruct to a nice 10 inch belly plate. Content with our finds we pressed on to the very reliable and freshly washed Corsicana construction site, the formation being perhaps a million years older than the Escondido.



FIGS 30-35: Woehr's Escondido teeth including *Odontaspis* sp. (?), *Serratolamna serrata* and *Squalicorax pristodontus* above and center, nurse shark teeth *Ginglymostoma lehneri* bottom let, *Ischyrhiza mira* sawfish and *Echodus ferox* teeth bottom right along with unidentified fish and reptile teeth (Site 86)



FIGS 36-39: Woehr's Escondido finds including ray teeth *Rhombodus binkhorsti* above, unidentified fossil lower left, shark and fish vertebrae lower center, miscellaneous worn teeth lower right (Site 86)