

**FOSSIL COLLECTING REPORT
MAY 2007**

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May 5, 2007: Fresh Start in the Corsicana and Escondido

San Antonio collecting buddy Tom Fisher and I had marked May 5 as a day we'd collect together many weeks in advance but when that day arrived, our priority venues were impossibilities due to a deluge of rain. All the rain however was a boon to collecting at a couple spots right under our noses in the San Antonio area, namely the Corsicana and Escondido formations, 68 and 66 MYA respectively.

We kicked things off at one of 3 Corsicana sites just after daylight. 1.75 inches of rain fell hard and fast on the area a few days prior so I had high hopes for the site. We began crawling and began finding the most common echinoid, *Hemiaster bexari*, within 10-15 minutes. The frequency of echinoid finds increased as we covered more of the right zone. Tom was scratching his head as I called out the echinoids I found until I showed him how they presented themselves obscured by a thin layer of matrix and he laughed knowing that he had already thrown back 15-20 specimens which he thought were just blobs of matrix. Early on I found a couple very nice crab carapaces *Dakoticancer australis* and lots of matrix clods showing partial crabs broken in section. I bagged them all along with some of the better bivalves and gastropods and moved on.

The action picked up and never dropped off for the entire 6-7 hours we spent there. It seemed like every 30-60 seconds somebody found an echinoid. In total I think Tom found 40-50 while I speed bagged 142. Our best echinoids included a couple *Plesiaster americanus*, a couple *Linthia variabilis*, 3 or 4 *Proraster dalli*, and one juvenile *Cardiaster leonensis*. But other good finds were made as well. I nearly topped off a 5 gallon bucket with partial crab nodules to accompany my 5 better crabs. Tom too found a nice, big crab carapace glowing ghostly white at him from a freshly washed hillside. At one point he was about to chuck a big "snail" back in the weeds but thought better of it and came over to show it to me. "Whoa!" It was the biggest and most complete raquetball sized *Eutrephoceras* nautiloid I'd ever seen come out of any formation in Texas. I later found a similar specimen of the same, albeit smaller and a little more damaged. Tom knew his wife would relegate some of his finds to the shed rather than allow them in the house so he magnanimously handed me his crab and nautiloid, a favor I plan to return soon in the form of a guided Pleistocene vertebrate trip.



FIGS 1-2: *Dakoticancer australis* crab carapace in situ left, bucket full of echinoids and crab nodules right (Site 348)



FIGS 3-6: A pile of *D. australis* crabs – “the good” upper 2 frames, “the bad and the ugly” lower 2 frames (Site 348)



FIGS 7-13: Corsicana fm nautiloids *Eutrephoceras planoventer* - top 6 frames are the museum grade specimen found by Tom Fisher, last frame are the author's lowly specimens (Site 348)



FIGS 14-18: Corsicana echinoids *H. bexari* and *C. leonensis* top row, *H. bexari* third frame, *L. variabilis*, *P. dalli*, and *P. americanus* last 2 frames (Site 348)



FIGS 19-23: Echinoids *L. variabilis* and *H. bexari* above, gastropod *S. bexarensis* second row, unidentified gastropod below (Site 348)



FIGS 24-27: Various gastropods and bryozoan top 2 frames, *Plicatula mullicaensis* *Neithea bexarensis*, *Lima acutilineatum*, and other bivalves third frame, oysters *Pycnodonte mutabilis* below (Site 348)



FIG 28: Cool calcite crystals found in a when randomly splitting nodules (Site 348)

With hands and knees shot despite the protective gear I was ready for a car ride to a pit in the Escondido formation which typically yields a few hundred shark and ray teeth from reddish gypsiferous clays after good rains. Probably 10 inches of rain had fallen on the site since my last visit, but our finds weren't quite as numerous as anticipated. Either somebody else had hit the site recently or the spring overgrowth had thwarted the fossil-friendly erosion which happens most readily during winter rains. We still landed good examples of shark teeth *Serratolamna serrata* and *Squalicorax kaupi* along with some barracuda looking fish teeth, saber tooth herring teeth *Enchodus ferox*, and sting ray teeth *Rhombodus binkhorsti*. We grabbed a few small shark or ray vertebrae as well before hitting the road, jamming out to some live Grateful Dead and Traffic, and grabbing a sub after a long day on the hands and knees.



FIGS 29-31: Escondido fossils including *Enchodus* (fish) and *Ischyrhiza mira* (sawfish) teeth and turtle shell fragment above, *Squalicorax pristodontus* (crow shark) teeth second frame, fish vertebrae and *Rhombodus binkhorsti* (ray) teeth below (Site 86)



FIGS 32-33: Mackerel shark teeth *Serratolamna serrata* from the Escondido fm (Site 86)

May 18, 2007

While most guys were kicking back a cold one after work on Friday I rushed over to one of the Corsicana sites for an hour of collecting to kick off the weekend. In short I picked up a crab or two and a handful of echinoids and went home pleased with the results.



FIG 34: *D. australis* crabs (Site 248)



FIGS 35-37: Bivalves *Lima guadalupensis* above, echinoids *L. variabilis* and *H. bexari* below (Site 248). Note cool pyrite filled cracks on the *H. bexari* close up image

May 24, 2007: Lousy Collecting in Lauderdale

My family drove to sunny Florida for 10 days of friends and family. One of highlights was watching my 5 year old son Weston land a 3 foot gator while fishing in the pond behind my grandpa's house. Once we reached Deerfield Beach we were blasted by 40 knot winds day and night all week, forcing me to scrap offshore fishing plans with a

buddy. Instead I turned my attention to fossil collecting, but this is perhaps the least productive part of the state for this pursuit.

I did manage to land a few nice Pleistocene bivalves and gastropods bleached and in some cases partially encased in sandy, consolidated matrix. Some of the bivalves had both valves intact. They all looked like extant (living) species to me which falls in line with the age of the sediments just inland from the beach (Anastasia formation) and just south of Lake Okeechobee (Caloosahatchie formation). At any rate I now have some new formations represented in my collection.



FIGS 38-39: Whelk from the Anastasia formation (Site 401)



FIGS 40-41: Anastasia fm gastropods and bivalves (Site 401)



FIGS 42-43: Anastasia fm moon shell and calcitic internal mold of the bivalve *Chione* above (Site 401), whelks from nearby Site 402 below



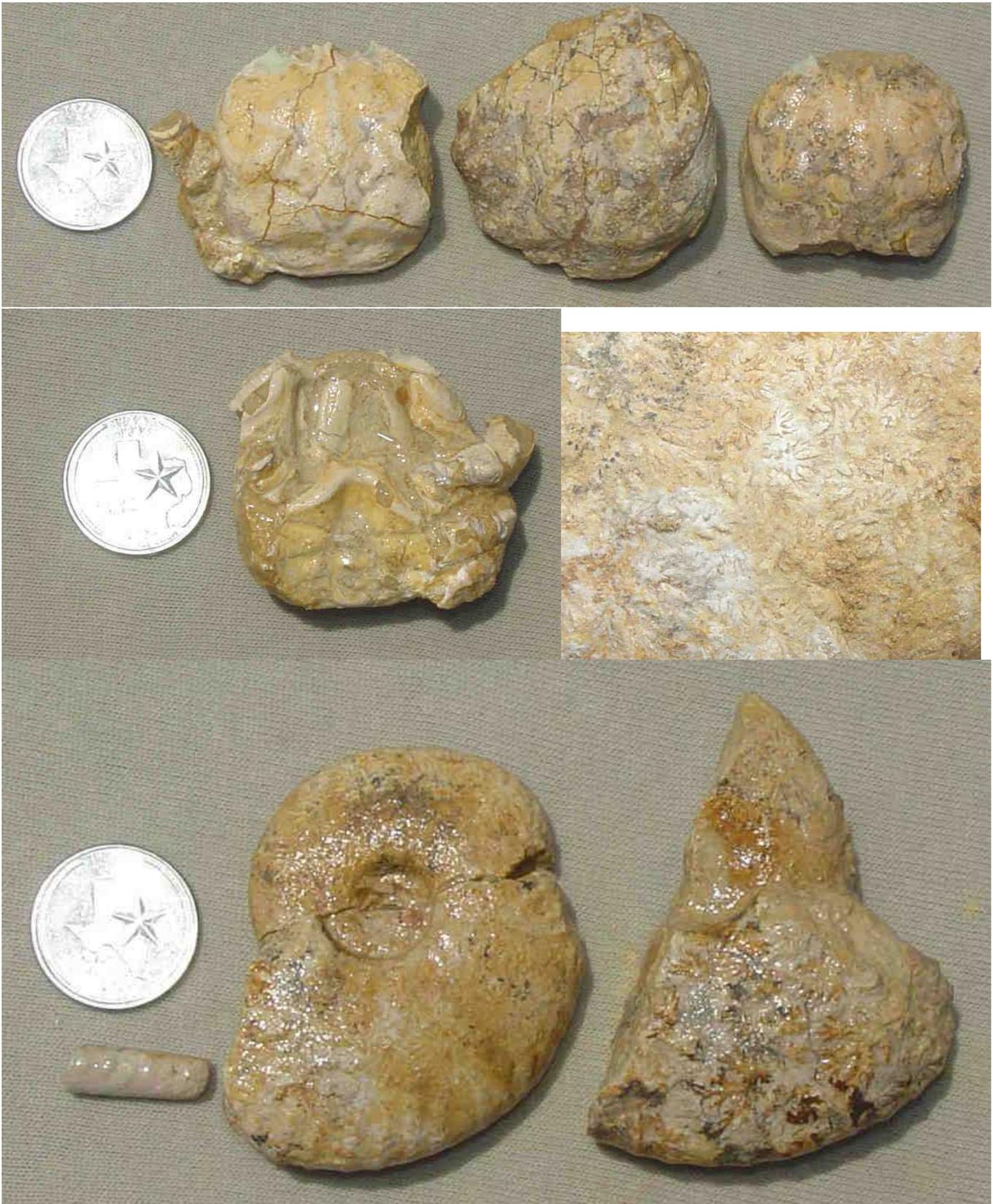
FIGS 44-47: More from Fort Lauderdale's Anastasia fm including various bivalves, gastropods and oysters (Site 402)



FIGS 48-49: Anastasia fm bivalves with both valves intact above (Site 402), various bivalves and gastropods including *Turritella*, olive shells, and others from the Caloosahatchie fm south of Lake Okeechobee below (Site 403)

May 27, 2007: Striking While the Iron is Hot

We got home from FL mid afternoon on Monday so I made a beeline for the Corsicana since we had gotten 2.5 inches of hard and fast rain while we were gone. At first I was crestfallen upon seeing how an extremely productive part of the exposure was recently graded by heavy equipment, but my attitude soon did an about face. Within an hour I was jingling perhaps 75 nice echinoids, several being scarce *Plesiasters* and *Linthias*. I picked up half of a *Pachydiscus* ammonite, rare for this exposure. I wished I could find a whole one. Later on I did exactly that. The 2.5 inch *Pachydiscus* was broken in two pieces, but it was worthy of any appreciative collector's attention. A couple *Dakoticancer* crabs and a decent but small *Eutrephoceras* nautiloid came to hand as well before I decided to pull the plug and move on to explore new areas.



FIGS 50-53: *D. australis* crabs above, suture detail and whole and partial *Pachydiscus* sp. ammonites and partial straight ammonite *Baculites* sp. below (Site 348)



FIGS 54-55: 2 views of a nice nautiloid *E. planoventer* (Site 348)



FIGS 56-58: Corsicana echinoids *L. variabilis*, *P. dalli*, and *P. americanus* aboral and adoral views first 2 rows, a pile of *H. bexari* below (Site 348)



FIGS 59-60: Corsicana gastropods above and bivalves below (Site 348)

I bushwhacked my way to an area that had been graded some time ago but had apparently had seen many rains without further disturbance. My first find was another cute little *Pachydiscus* ammonite the size of a Texas quarter followed by some broken crab material. Contrast diminished and shadows grew longer as the sun began to sink below the horizon, but the last scattered rays of dusk revealed a rare and welcome site...a prolific Cretaceous crab community turned crustacean necropolis. *Dakoticancer* carapaces littered this small hillside exposure, and my fast, stooping walk revealed them at the rate of one a minute. Most were badly weathered from sitting out in the elements too long, but I absconded with at least 2 perfect carapaces. This is precisely the reason I hunt this formation so often. These rare and intricately ornamented crabs can only go through a couple saturation and drying cycles once exposed before the carapaces begin to delaminate and disintegrate.

Based on the rate of crab grabbing in poor light, you might guess that I'll be returning to this particular crab farm at the next possible opportunity in broad daylight. Good guess. Only next time I hope to bring along a buddy who has never found these things before. I get a kick out of watching a seasoned collector flip his wig when discovering something new and significant for his collection.



FIGS 61-64: Crabs *D. australis* – “the good” first 2 rows, “the bad and the ugly” last 2 rows (Site 349)



FIGS 65-66: Rare *Pachydiscus* sp. ammonite above, *Neithea* and *Plicatula* bivalves and 2 gastropods below (Site 349)