

June 20, 2006: A Rematch with Lake Bridgeport

Several months ago I lugged my little boat 300 miles north to Lake Bridgeport only to be blown off the water by high winds. I still found plenty of fossils at dry sites, but the lake's fossil-rich shoreline bluffs gnawed away at me. Finally I took a vacation day during low water conditions and light winds and orchestrated my rematch. Under bluebird skies I threw my little aluminum boat in the water at 7 a.m. and cruised along at 11 MPH as per my GPS.

The first site was a large shoreline bluff in the Lake Bridgeport shale, a 300 MYA gray clay studded with fossiliferous red ironstone concretions. The water was so calm and clear that I began my search by wading at water's edge and plucking out fossils up to a foot below the surface. I quickly snagged a nice goniatite and threw back a trilobite pygidium (tail), but my finds were dominated by *Lophophyllidium* horn corals and ridiculous large and abundant gastropods such as *Worthenia tabulata* and *Trepospira discoidalis*. Many of these red concretions contained multiple gastropods jutting out at all angles. I was happy to see these hit the bottom of my bucket.



**FIGS 63-66:** Lake Bridgeport Shale site 311 top two frames, unidentified goniatite in concretion bottom left, ornate rostroconch *Apotocardium* sp. bottom right



**FIGS 67-72:** More from the Lake Bridgeport Shale including unidentified goniatite and straight cephalopod *Mooreoceras* sp. top left, horn corals *Lophopyllidium* sp. top right, worm trail *Scalaratuba* middle left, gastropods *Meekospira* sp., *Straparollus* sp., and *Bellerophon* sp. middle right, gastropods *Trepospira discoidalis* lower left, gastropods *Worthenia tabulata* and *Glabrocingulum* sp. lower right (Site 311)



**FIGS 73-74:** More *Worthenia tabulata* gastropods from Site 311

Pressing a couple miles farther up the shore I landed on another exposure of the Lake Bridgeport shale. This one too was littered with gastropods, but it contained good numbers of cephalopods as well, namely a nice palm sized goniatite as well as coiled and straight varieties of nautiloids. I also grabbed slab of leaves from the overlying limestone plus some *Calamites* stalks from ironstone concretions.



**FIGS 74-75:** Two views of Lake Bridgeport Shale site 312



**FIGS 76-79:** Lake Bridgeport Shale goniatites *Preshumardites* sp. above, *Preshumardites* sp. and *Gonioloboceras goniolobum* below (Site 312)



**FIGS 80-85:** More cephalopods from the Lake Bridgeport Shale including *Knightoceras* sp. first 2 frames, nautiloids *Liroceras* sp.? middle left, straight nautiloid *Mooreoceras* sp. middle right, corals *Lophophyllidium* sp. lower left, plant stalk *Calamites* sp. lower right (Site 312)



**FIGS 86-93:** Gastropods from Site 312 including *T. discoidalis*, *W. tabulata*, and *Glabrocingulum* sp. top left, *Straparollus* sp. top right, *T. discoidalis*, *W. tabulata*, and *Glabrocingulum* sp. second row, *W. tabulata* third row, *W. tabulata* and *Glabrocingulum* sp. bottom left, *T. discoidalis* bottom right

Up near the dam the facies began a gradational change from being mollusk dominated to a mix of mollusks, sponges, bryozoans and crinoids. Here I found a big *Strobeus* gastropod plus more *Worthenia* in addition to some decent straight nautiloids.



**FIGS 94-96:** Lake Bridgeport Shale site 313 above, orthocone nautiloid *Mooreoceras* sp. lower left, horn corals *Lophophyllidium* sp., cephalopods *Mooreoceras* sp., and gastropods *Strobeus* and *W. tabulata* lower right

After exploring a number of additional sites and finding little I pulled out the boat and visited one well known dry site in the Lake Bridgeport shale. An hour of crawling here in the radiating heat produced about 40 small pyritized goniatites from 2 to 10 mm diameter in addition to a couple plant seeds and 3 *Ditomoygge* trilobites ranging in condition from decent to rough.



**FIGS 97-103:** Lake Bridgeport Shale goniatites *Eoasianites* sp. top left, *Paraschistoceras* sp. remainder of top row, *Peritrochia* sp. second row left, *Paraschistoceras* sp., *Peritrochia* sp., *Vidrioceras* sp. and *Prouddenites* sp. second row left, miscellaneous pyritized micromorphic goniatites lower left, orthocone cephalopods lower right (Site 112)



**FIGS 104-106:** Trilobites *Ditomopyge* sp. above, horn corals *Lophophyllidium* sp. and plant seeds *Hexoloba* sp. below (Site 112)

I pulled out a little earlier than usual, heading toward the house at 3 with a 5 hour drive ahead of me. Fortunately attentiveness on the road is not a problem for me when I have a 5 gallon bucket full of great fossils to think about on the way home.

June 25, 2006: Maastrichtian Madness

My friend Brent Dunn dragged his family down to San Antonio in his new fire engine red Hummer H3 for a weekend getaway. Brent and I “took one for the team” and gave the wives a break on Saturday by sending them out for massages (which we paid for) and letting them do some shopping (which we didn’t pay for) while we watched the kids. Man, was that a loud afternoon! We were quick to cash in on all this good will by meeting at dawn on

Sunday, my 36<sup>th</sup> birthday, and doing a little South Texas fossil hunting. I enjoy taking Brent to my best sites as he has showed me many good ones up his way.

At any rate, an hour and 4 tacos after we hit the road we left an informal liability waiver on the doorstep of a local clay pit. Luckily I had remembered to ask the operator to unlock the gate, saving us a mile of round trip walking. We were able to drive to within 50 yards of the shark tooth rich slope of 66 MYA Escondido formation. Suited up in full battle gear (gel knee pads, gloves, and medicine bottles) we began our methodical crawl of the mottled orange and gray clay with sheets of gypsum sandwiched in between.

In short we spent two hours at the site with a combined take of 200-300 shark, fish, and ray teeth as well as several fish vertebrae and a turtle vertebra before collecting productivity waned and the sun focused on us like ants under a magnifying glass. Fish teeth were mainly *Enchodus* sp. and the ray teeth were all *Rhombodus binkhorsti* specimens. Shark teeth were the bulk of our take, with the majority being *Serratolamna serrata*. We also got *Squalicorax pristodontus* and *Carcharias/Odontaspis* sp. in addition to 2 rare nurse shark teeth *Ginglymostoma lehneri*. This was a welcome start to my birthday bash.



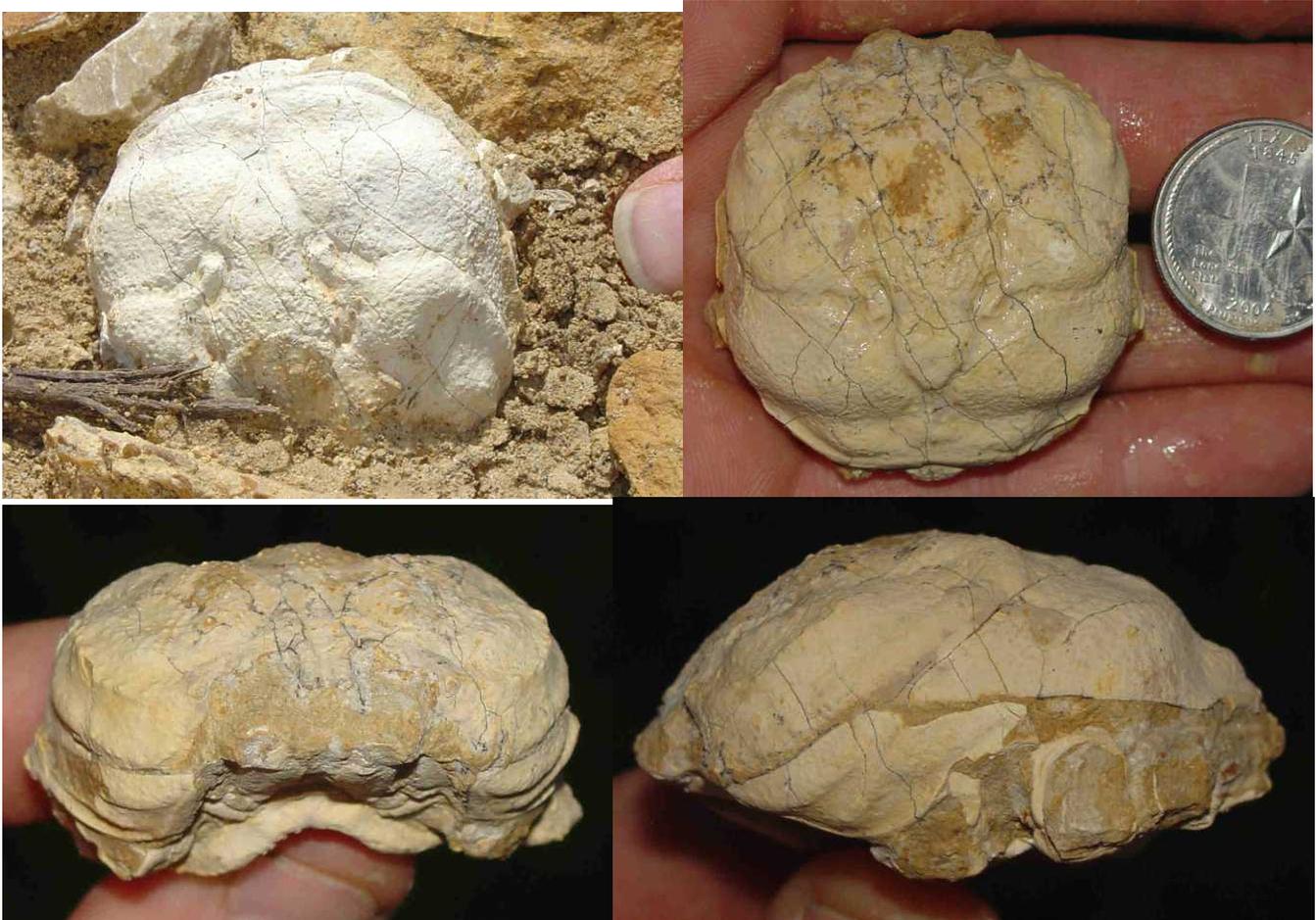
**FIGS 107-110:** Brent Dunn hunting the Escondido fm plus nurse shark tooth *Ginglymostoma lehneri* above, unidentified fish teeth, *G. lehneri* teeth, and *Rhombodus binkhorsti* ray tooth lower left, more *R. binkhorsti* teeth lower right (Site 86)

Back in San Antonio we hooked up with another Dallas area buddy Frank Holterhoff at my favorite site in town, the Corsicana construction site. The 3 of us crawled this small site for 3 hours or so before tender knees and rising temperatures called for air conditioning and iced watermelon. This site presented tremendous finds for all of us since there had been 3 hard rains since my last collecting trip there.

I gave the other guys the hillside where I had taken the bulk of my echinoids and crabs in the past while I moved off to another area. As I began my ungainly quadruped crawl along a gravelly construction road of 67 MYA orange marl I laid hands on a few *Hemiaster bexari* echinoids before landing a big *Plesiaster americanus* and a tiny *Proraster dalli*, both coveted finds. I grabbed a *Carcharias* sp. shark tooth while Brent appropriated a beautiful *Squalicorax pristodontus* tooth.

Brent got a little suspicious that his host had directed him to one area while moving off to another, so soon he came down to take a sniff where I was working. I gave him the hillside I was about to search and changed my course a little bit....a girly shriek of elation rang out; it was a sound I thought I was incapable of, yet it fit the situation perfectly. Before me was a large *Dakoticancer australis* crab carapace essentially prepped perfectly by nature and glaring as white as a ghost with its face buried in the dirt. Rocks began flying at me from Brent's direction.

A few echinoids later I asked Brent, "What would you say if, let's say, I found another crab?" His face was expressionless. I called him over and showed him a marl clod with just a thumbnail sized patch of white showing, and close scrutiny revealed a crab leg eroded away in cross section. Experience suggested that this carapace too would be perfect, the entombing matrix keeping the destructive elements of nature at bay until I could bring out its natural splendor in my garage.



FIGS 111-114: Four views of a fine example of the Corsicana fm crab *Dakoticancer australis* (Woehr, Site 248)



**FIGS 115-123:** More *D. australis* crabs from the Corsicana fm including 2 additional views of Woehr's first specimen first row, Woehr's second specimen second row, Dunn's two specimens third and fourth rows (Site 248)



**FIGS 124-127:** Echinoids from Corsicana site 248 Woehr's *Plesiaster americanus* top left, Holterhoff's impeccable *Proraster dalli* top right, Woehr's possible juvenile *P. dalli* below



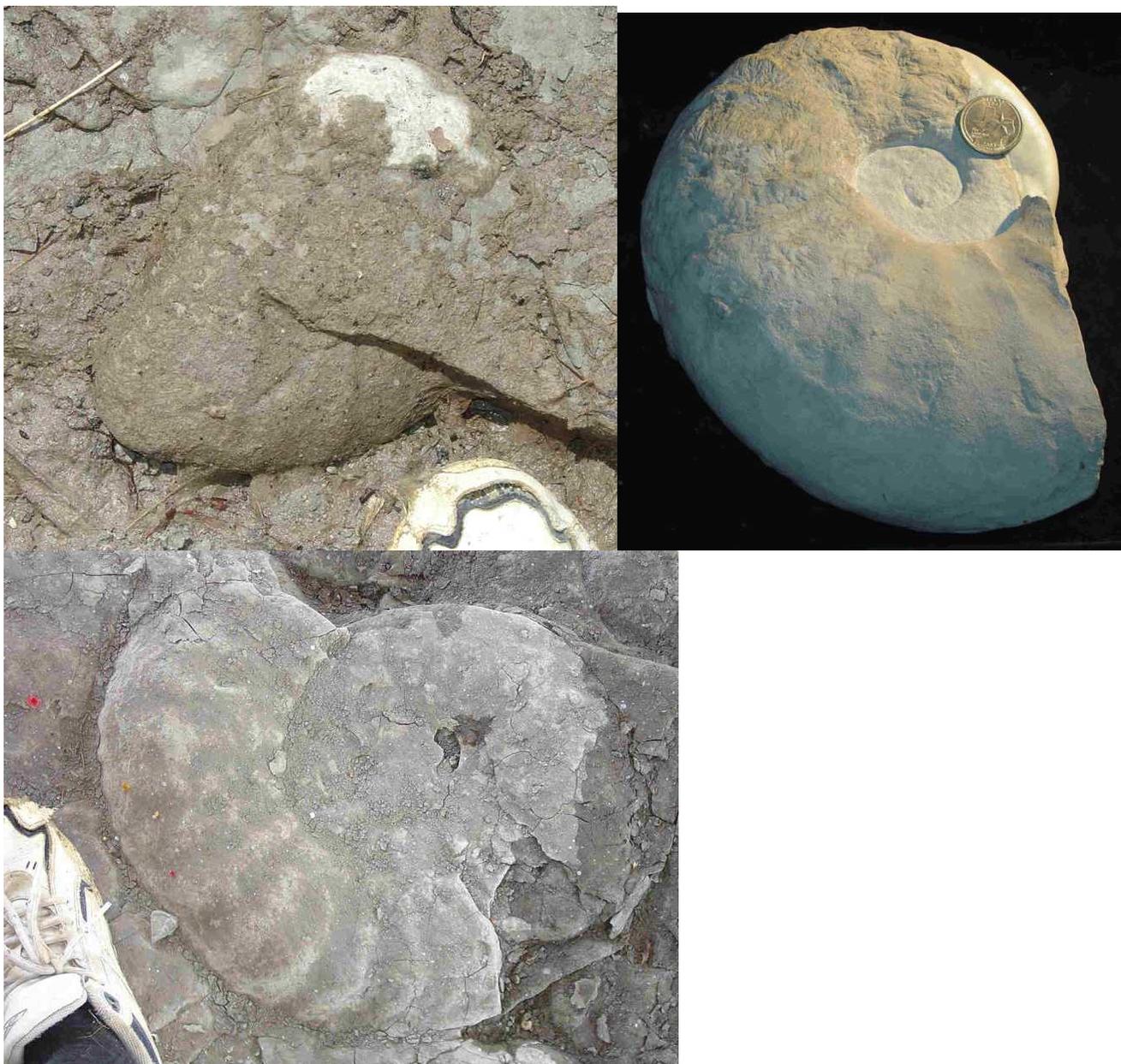
**FIGS 128-131:** Woehr's Corsicana fm echinods *P. americanus* (1) and *Hemiaster bexari* top left, *H. bexari* with presumed crab claw attached top right, Dunn's crow shark tooth *Squalicorax pristodontus* bottom left, Woehr's shark tooth *Carcharias* sp. bottom right (Site 248)

Just a few feet away from the first and second crabs I spotted a third one. This time I called Brent over and told him that if he could find it he could have it. That is an uncomfortable form of pressure when fossil hunting – one person seeing something and challenging the other to see it too. Actually this is a form of cruelty imparted between friends. Finally I asked Brent to “tie my shoe” at which point he saw the thing at the end of my foot. It must have been an insult and let down for him since this crab had the tail and face broken off once it was pulled from the ground, leaving only 50% of the specimen intact. However Brent got a good visual on what these things look like in the exposure, and with his mind and eyes thus calibrated came back with a vengeance.

I suggested that the guys look around an eroding ridge where I had done well in the past on echinoids. Frank worked the area methodically and landed a number of *H. bexari* and one very large and well preserved *P. dalli* echinoid. Brent moved downhill to an area I've never searched and came back with 3-4 nice crabs. He demonstrated his quick learning ability and fine eye for detail by finding a couple crabs only barely exposed in nodules. It is amazing to see how much detail is preserved with these things and how well it was hidden by matrix. He'll surely be quite pleased with his finds once prepped.

We left Frank on site to continue his echinoid search while we headed off to a stinking creek which exposed the Pecan Gap formation (72 MYA). While zigzagging the gray chalk in the bed of the creek I found two *Pachydiscus paulsoni* ammonites. One was about 7 inches diameter and missing just a bit of the whorl near the aperture. I think I can repair it. The other was large and exploded in situ. It could be photographed but not recovered. Brent found one as well, but it was a bit too far gone to take home. We plodded downstream to a hard yellow Pecan

Gap/Anacacho bench which gave up one nearly complete *Trachyscaphites spiniger porchi* ammonite before the sun took its toll and chased us back to the truck.



**FIGS 132-134:** Pecan Gap ammonites *Pachydiscus paulsoni* first 3 frames (large specimen in situ fractured and unrecoverable) at Site 166



**FIGS 135-136:** Pecan Gap ammonite *Trachyscaphites spiniger porchi* in situ and prepped (Site 166)

For the San Antonio area this was premier collecting as some of these specimens and formations can be quite elusive at times. Brent enjoyed the new additions to his collection as did I and it was good to be afield with a couple buddies on my birthday too. I think we all walked away a little better off than we started.