

ELATION IN THE EAGLE FORD

HUNTING SAN ANTONIO'S EAGLE FORD FORMATION 031904

Over the past several months I've embarked on repeated missions to find huntable outcroppings of the Eagle Ford in Bexar County, and each time I have come back enriched from the experience, but light in the backpack. Back to the internet and to my paleo library I went, researching, studying Atlas of Texas maps, viewing aerial photos, and attempting to extrapolate all of this well enough to legally enter a very poorly exposed formation with a goal in mind: snagging vertebrate fossils of any kind.

Part of my problem was that the this formation (not sure what member of the Eagle Ford group is present in Bexar County) looks quite different from its sister members in the DFW area. 300 miles makes a huge difference. Up north it is generally a dark gray, gritty shale interbedded with flaggy limestone with a total section thickness of several hundred feet. It is known for shark teeth, mosasaur remains, etc. Down here it consists of brown to yellow-brown petroliferous smelling limestone flags resting atop soft, gritty, yellowish marly layers with a total section thickness of a mere 35 feet. All differences aside, the 3 hours I spent in the Eagle Ford this week after work produced my best local vertebrate finds to date.

The first exposure I stumbled upon is unassuming at first glance. Thin slabs of brown limestone line the creek bed, many with oyster shell hash on the surface. After watching fellow Dallas Paleo Society member, Robert Bowen, yank shark tooth after shark tooth from just such a geological context on many occasions, I decided it was time to get down and crawl for a closer look. So far I've landed about 8 or 10 pretty teeth of various species between 2 exposures remarkably close to my house. All have tannish roots and brown-gray enamel. I think I have a few *Squalicorax*, *Cretoxyrhina*, and *Cretolamna* specimens, plus a few fish microteeth which were found while randomly splitting the shell hash back home with my air scribe. Figure 1 shows a few of these teeth.



FIGURE 1: A sampling of shark teeth from the Eagle Ford of San Antonio. 4 or 5 more teeth were reduced to possession today and missed the photo deadline.

Now for the main course. Since fossils were sparse in the creek exposure, I decided that if anything looked funny, I'd just throw it in my backpack and give it a closer look at home. Glad I did. I saw a strange white, elongated inclusion in a flag of tan limestone, and maybe some grayish broken enamel on the same slab. Back home, I broke out the toothbrush and water and scrubbed some dirt away. The white inclusion looked like bone with a tubular void tunneling into it. Nearby were 9 broken off teeth revealed in cross section, but a clump of rock obscured the top of the bone. An hour with the aircsibe brought shocking results. My work revealed 8 near perfect teeth still imbedded in the jawbone! See Figures 2-4.



FIGURE 2: Unidentified bony fish jawbone with 8 nice teeth plus 9 truncated teeth which appear to point the opposite direction of the intact teeth, implying possible remains of an upper and lower jaw.



FIGURE 3: Bottom view of eroded jawbone showing exposed tooth root

I've tentatively identified this teleost fish jaw as *Pachyrizodus*, but due to my extreme lack of experience with such finds, my more experienced peers with the DPS are more than welcome to correct me if I'm wrong. Many Dallas area collectors find specimens like this on their home turf, but in San Antonio this is almost unheard of. This piece now occupies a revered spot in my glass coffee table.



FIGURE 4: One more good look at some serious dentitions

Fossils for me are most rewarding when they take a little “incessant sleuthing” to sniff out. Of course I enjoy trading site info with other collectors, but finding something noteworthy on your own is the cat’s meow. Speaking of cats, I think I’ll now go look for the saber toothed variety...