

## HOLY GONIATITES, BATMAN!

Since last summer I have longed to return to Jacksboro and bury my hands in the blue-gray Finis shale capped by yellow Jacksboro limestone spilling into the gullies. The Lost Creek Spillway is probably my favorite fossil collecting site in Texas, renowned for its incredibly diverse and ludicrously abundant Pennsylvanian floral and faunal assemblage. Again I took my beach cruiser along to cut the 20 minute walk along the top of the dam down to a 5 minute ride, while allowing me to tote a cooler of refreshments to maintain my endurance afield.

I enjoy all of the fossils Jacksboro has to offer, including its gastropods, brachiopods, pelecypods, crinoids, corals, etc. But since I've found and documented all this good stuff in previous reports, this time I'll focus only on the stuff that is new or obscure to me. My quest was for shark material and goniatites. I found abundant shark material resulting in fistful of coprolites. No shark skulls or teeth this trip.

Jacksboro has its surprises, and this time I was lucky to find a *Trigonocarpus* seed as shown in Figure 1. This seed was thought to have been washed out to sea where it eventually settled to the bottom with aspirations of joining my collection.



**FIGURE 1:** *Trigonocarpus* seed from the Finis Shale

Near the base of the Finis shale is a horizon where *Conularia* are quite abundant. Figure 2 shows a close-up of one of these paleo waffle cone look alikes. Thought by some to be some sort of coral, I like the distinctive striations in its surface.



**FIGURE 2:** *Conularia crustula* from the Finis Shale

Since I was a kid fossil hunting in Ordovician outcrops in the Cincinnati area, I've always had an affinity for orthoconic cephalopods such as the *Endoceras* and *Sactoceras* specimens found not far from my home. In that same spirit, I'll give the orthocones some recognition in the next two photos.



**FIGURE 3:** *Brachycycloceras* from the Finis Shale



**FIGURE 4:** *Michelinoceras* from the Finis Shale

Well into the morning I stumbled onto a goldmine of goniatites. These were not the large 1 to 3 inch specimens like I found last summer, but small pyritized specimens from a subtle horizon in the Finis shale. These micromorphic goniatites came in a half dozen varieties, and once I found this layer they seemed to litter the ground. I ended up with about 80 good ones ranging in size from .030 to approaching .500 inch. They are cool to the naked eye, but only under the magnification of a microscope do the infinitesimally minute details show. The following sequence of photos shows full views of specimens shot at 10X, followed by zoomed in views of the delicate sutures at 60X.



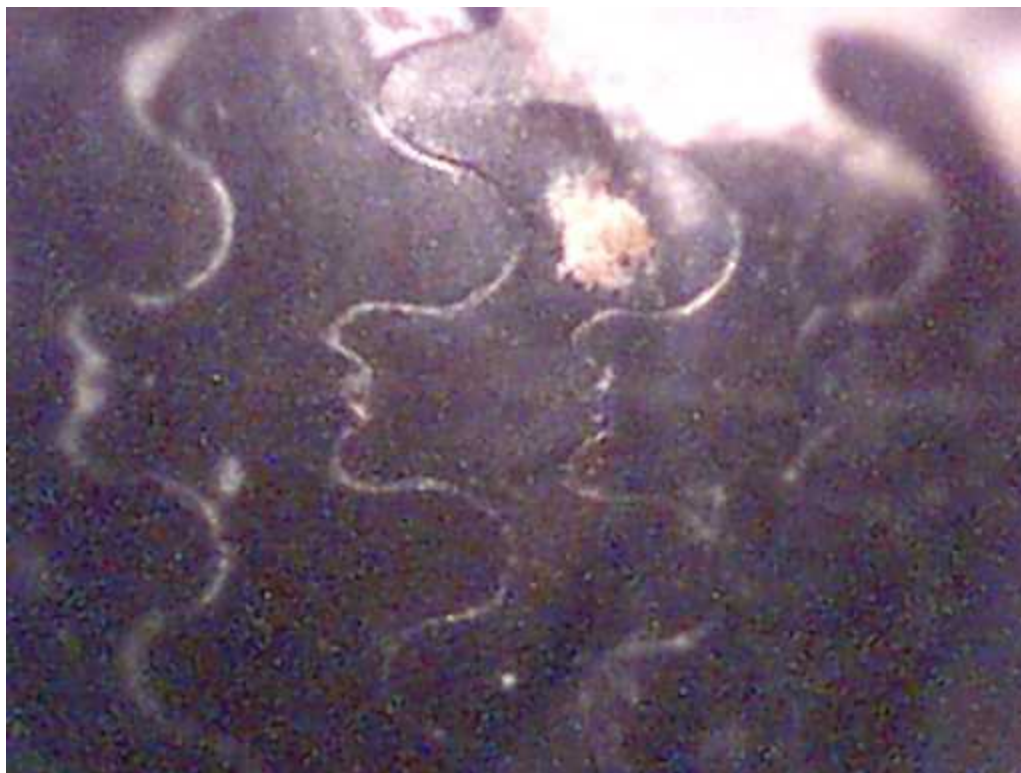
**FIGURE 5:** *Liroceras* from the Finis Shale



**FIGURE 6:** *Liroceras* from the Finis Shale



**FIGURE 7:** *Paraschistoceras missouriense* from the Finis Shale



**FIGURES 8 and 9:** *Eoasianites* and Suture Closeup



**FIGURE 10:** *Schistoceras* from the Finis Shale



**FIGURE 11:** My smallest Goniatite to date from the Finis Shale – *Imitoceras*?



**FIGURES 12 and 13:** *Peritrochia* and Suture Closeup



**FIGURES 14 and 15:** *Vidrioceras* and Suture Closeup



**FIGURES 16 and 17:** *Unidentified* Goniatite and Suture Closeup



**FIGURES 18 and 19:** Unidentified Goniatites and Suture Closeup



**FIGURES 20 and 21:** Unidentified Goniatices and Suture Closeup



**FIGURES 22 and 23:** Unidentified Goniatite and Suture Closeup

In addition to the goniatites, I found about 50 little goniatite-shaped fossils. Under a microscope they show no sutures, so I'm guessing that they are inner molds of *Bellerophon* gastropods. Since I found several micromorphic *Trepostira* gastropod molds in the same zone, perhaps my conjecture has some merit.

After a few hours I jumped back on my bike with a few little baggies of plunder, confident that I left many more out there for others to find. When we fish at the coast, we sometimes get to say we "left 'em bitin'". Sort of the same deal here, except I'm probably the one who has been bitten, and the fangs of the fossil bug are in pretty deep.