

THE UNIVERSITY OF TEXAS
DEPARTMENT OF GEOLOGY
AUSTIN 12

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Dr. H. B. Stenzel
3726 Colquitt
Houston, Texas

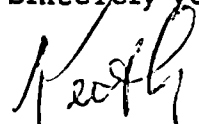
Dear Henryk:

I hope you have received the collection of Gryphaea aucella by now. I am sorry they were so late; I had collected them before I went to the hospital but didn't get them shipped. All of the specimens are from Taff's aucella beds which, according to Durham's stratigraphy, would be the beds from which Roemer collected the types. If you need a map locality, please let me know and I can provide you with an overlay.

Enclosed are my notes concerning Gryphaea aucella and Gryphaea wratheri.

Best regards to yourself and the girls.

Sincerely yours,



Keith Young

KY:bs

Notes concerning PYCNODONTE AUCELLA (Römer)

1. According to Römer (p. 74) his specimen came from the ford near New Braunfels. The Burditt is not present at New Braunfels.
2. Stephenson (1936, p. 1) says that Inoceramus undulatoplicatus ranges up into the Gryphaea wratheri zone (a thickness of considerably more than the maximum thickness of 35 feet he gives for the zone).
3. Stephenson (1936, p. 1) considers Gryphaea aucella to be in the Burditt, 20-25 feet from the top of his Austin (Durham's and Marks' juvenile aucellae in the Burditt).
4. Stephenson (1936, p. 1) also says Gryphaea aucella appears earlier than Gryphaea wratheri. (Certainly it appears much earlier than the horizon he designated as the G. wratheri zone).
5. By ammonite zones Gryphaea wratheri in the Tombigbee sandstone is equivalent to the Dessau chalk (aucella beds of Taff and Gryphaea aucella zone of Young and Marks).
6. Stephenson (1936, p. 2) says, "Gryphaea wratheri may have had its evolutionary development within the Gulf region, for it is closely related to and may be a variant of G. aucella Roemer".
7. In Travis County Stephenson (1936, p. 4) identified Gryphaea wratheri from USGS Mesozoic localities 7592 and 7581 and Hill Collection 51; all of these localities are in the Dessau chalk, within the Gryphaea aucella zone of Young and Marks, in the aucella beds of Taff (1892), and in the aucella biostrome of Durham.
8. Stephenson (1937, pp. 133-134) lists in ascending order the Inoceramus undulatoplicatus zone, Gryphaea wratheri zone, Exogyra tigrina zone, Ostrea centerensis zone, and Ostrea travisana zone. This puts Stephenson's Gryphaea wratheri zone in the interval of Taff's aucella beds, which according to Durham's stratigraphy is the bed that crops out, along with the Inoceramus undulatoplicatus zone at the ford at New Braunfels where Roemer collected the types of Gryphaea aucella.
9. In Stephenson's section (1937, p. 134) the top bed of the Austin chalk (=20⁺) is the upper part of Adkins' Burditt. This contains Durham's juvenile aucella bed of the Burditt. His lowest bed in this section (=7) is Taff's aucella beds, of which only the top part is exposed. In this bed Stephenson's Gryphaea aucella are the juveniles in the bed of juvenile Gryphaea aucella that occurs at the top of the Gryphaea aucella biostrome, and the Gryphaea wratheri of Stephenson here at this locality are the true, adult Gryphaea aucella.

Notes (cont.) on P. aucella (Römer)

10. As near as I can determine, at least in Travis County, Stephenson assigned only juveniles to Gryphaea aucella (although Römer's specimen is much larger) and he then gave the adults the new name, Gryphaea wratheri. Whether this was his actual intention or not I cannot determine, but that is the way the stratigraphy works out in Travis County. Consequently I am taking Stephenson's (1936) suggestion (see 6 above) and considering Gryphaea wratheri a morphological variant without stratigraphic value and thus not meriting a name.

K. Young