

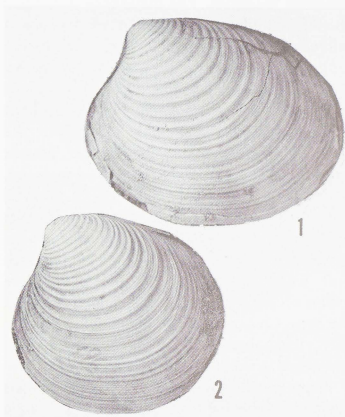
NOTES ON THE FAUNA OF THE CHIPOLA FORMATION — XVII
ON THE PRESENCE OF *CLEMENTIA (EGESTA) GRAYI* DALL

HAROLD E. VOKES
TULANE UNIVERSITY

In 1900 Dall figured *Clementia Grayi* Dall" from the "Oligocene of Oak Grove sands" (1900, pl. 37, fig. 12) and in 1903 (p. 1236) described it briefly but gave no indication as to its relative abundance. In 1926 [Sept. 20] Gardner repeated Dall's description and republished his original illustration (p. 154, pl. 24, fig. 6). Later in 1926 [Nov. 22], Woodring (p. 37, pl. 15, fig. 4) referred Dall's species to the subgenus *Egesta* Conrad, giving a much more complete description and a photograph of the holotype, stating that it is "an almost perfect left valve, although the hinge is defective. It is the only fully adult specimen discovered except two broken internal molds. The shell . . . is relatively thick, so thick that the concentric waves are not visible on the interior. It is the only shell that is so thick. The concentric waves are visible on the interior of a piece of shell collected at the same locality, but this thinner shell is smaller than the holotype. All the young shells are thin."

Woodring cited a number of localities, in addition to the type locality in the Oak Grove Sand. The majority of the Chipola occurrences listed are in the outcrops west of the type area in the vicinity of the Choctawhatchee River in Washington and Walton counties. In the region of the type Chipola, however, he noted but one specimen, from USGS Tertiary station 7151, "north bank of Tenmile Creek at wagon bridge on road from Forestville to Marianna, Calhoun County, Fla." This bridge was probably the one whose wooden piers may yet be observed in the stream about one-fourth of a mile west of the present bridge on Florida Highway 73 — the Clarksville/Marianna road.

The principal purpose of this note is to record the fact that *C. grayi* is a moderately common element in the Chipola fauna at



Clementia (Egesta) grayi Dall; locality TU 196 (X 1). Fig. 1, USNM 647437, length 46.7 mm, height 39.8 mm, diameter (paired valves) 23.5 mm. Fig. 2, USNM 647438, length 37.8 mm, height 37.0 mm, diameter (paired valves slightly compressed) 19.5 mm.

exposures along Tenmile Creek. The Tulane University collections contain 33 paired-valve specimens plus 10 right and 7 left valves, which were obtained from almost every locality along the creek except those immediately above the contact with the underlying Chattahoochee Formation. Nine of the paired-valve specimens plus 4 of the right valves were collected from TU 70, which is immediately below the bridge on Florida Highway 73, mentioned above.

A number of these specimens are incomplete because of the fragile nature of the thin-shelled valves, and many more examples encountered when collecting

disintegrated beyond repair either in the field or during laboratory preparation.

In contrast to this relative abundance on Tenmile Creek, it may be noted that our extensive collections from the strata exposed along the Chipola River contain but one paired-valve specimen plus fragments of one right and one left valve; all are from different localities. The difference in relative abundance in these two areas may be a reflection of differences in the nature of the sedimentary matrix present in the two areas. The strata exposed along Tenmile Creek appear to have a much higher clay and silt content than do the beds exposed in the Chipola River banks, where the matrix appears to be primarily a lime-sand material. In accord with these differences it may be noted that the Tenmile Creek sediments tend to be of a blue-gray color, while those of the Chipola River exposures are grayish buff when fresh and weather to a more yellowish tint. A study of the sediments of the type Chipola outcrops, now in progress, may yield more precise data explaining this, and other striking faunal differences.

Examination of these collections reveals that this species exhibits a considerable degree of variation in the shape of the valves. This was commented upon by Gardner

(1926, p. 155) in comparing specimens from the Shoal River horizon with the type specimen; the former appearing "to be relatively higher and less elongated transversely. The specimens are, however, too poorly preserved to warrant description." The Tulane Chipola collections contain forms similar to the type (see text fig. 1) associated with the higher and short forms noted by Gardner (text fig. 2) as well as with specimens of intermediate outline. These differences present no valid basis for separation of the second species.

LITERATURE CITED

- DALL, W. H., 1890-1903, Contributions to the Tertiary Fauna of Florida, . . . ; Wagner Free Inst. Sci., Trans., v. 3 (in 6 parts); [Part 5, p. i-ix, 949-1218, pls. 36-47, December, 1900; Part 6, p. i-xiv, 1219-1654, pls. 48-60, 2 tables, October, 1903].
- GARDNER, J. A., 1926-1950, The molluscan fauna of the Alum Bluff Group of Florida: U.S. Geol. Surv., Prof. Paper 142 (in 9 parts), 709 p., 62 pls., [Pt. IV, Veneracea, p. i-iv, 151-184, I-II, pls. 24-28 (September 20, 1926)].
- WOODRING, W.P., 1926, American Tertiary mollusks of the genus *Clementia*: U.S. Geol. Surv., Prof. Paper 147-C, p. i-ii, 25-47, pls. 14-17 (November 22, 1926).

July 31, 1974