NOTES ON THE FAUNA OF THE CHIPOLA FORMATION – XXXIII VARIATIONS ON A THEME – THE COLOR PATTERN IN SMARAGDIA CHIPOLANA (GASTROPODA:NERITIDAE)

EMILY H. VOKES TULANE UNIVERSITY

The small neritid gastropod originally named Neritina chipolana (Dall, 1892, p. 422, pl. 23, fig. 19) is a common element in the fauna of the Chipola Formation. Although confined to the Chipola Formation it is widespread there, occurring at almost every locality but most abundantly in the lower beds along Tenmile Creek.

In the original description Dall commented upon the most unusual feature of



Text-figure 1. Smaragdia chipolana (Dall); USNM 450385; height 5.5 mm, diameter 6.5 mm; locality TU 546. A, Apertural view (X 7); B-F, operculum (X 15; B, outside; C, inside; D-F, lateral views); SEM photographs by David G. Robinson, Tulane University. this species (which is, however, characteristic of the Family Neritidae) and that is the amazing degree of variation in the color pattern, stating: "This neat little shell retains its color-markings, which are composed of dark, narrow lines radiating from the axis and over the whorl in every conceivable form of zigzag or curve, either singly or in groups of three to five, either continuous or broken."

Gardner (1947, p. 608, pl. 62, fig. 11 [a copy of Dall]) changed the generic assignment to *Smaragdia*, and added: "This small form is remarkable for the persistence of its color markings, which are curiously sketchy and oriental in design."

The shells are always small, most are about 5 mm in height; the largest specimen seen measures only 7.0 mm in height and 8.0 mm in diameter. The color pattern, as noted, is very persistent, but is limited to a thin outer layer of the shell; decorticated specimens lose the pattern.

The purpose of this note is to document the statements above and to call to the attention of the reader the beauty of these tiny works of art, which do look much as though they were decorated by an oriental calligrapher.

LITERATURE CITED

DALL, W. H., 1892, Contributions to the Tertiary fauna of Florida: Wagner Free Inst. Sci., Trans., v. 3, pt. 2, p. 201-473, pls. 13-22, 1 map.

GARDNER, JULIA, 1947, The molluscan fauna of the Alum Bluff Group of Florida: U. S. Geol. Surv., Prof. Paper 142-H, p. 493-656, pls. 52-62.

December 12, 1990

Text-figure 2. Color patterns in Smaragdia chipolana (Dall). All specimens from locality TU 546, Tenmile Creek, one and one-half miles west of Chipola River, Calhoun County, Florida.

