## NOTES ON THE FAUNA OF THE CHIPOLA FORMATION-XXXII A NEW SPECIES OF THE GENUS CYMATIUM (MOLLUSCA: GASTROPODA)

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While collecting fossil mollusks along Tenmile and Farley Creeks in Calhoun County, Florida, this investigator discovered a number of specimens of a new species of Cymatium. This species and many other unusual forms were concentrated in a highly fossiliferous layer of reddish brown earth that directly overlies a more compact deposit of grav siliceous sediment. A total of four nearly complete specimens of the Cumatium were obtained from the south side of Tenmile Creek at Tulane collection site 951 (TU 951), Two additional specimens were collected on the north side of Tenmile Creek at the power line near TU 1098. One of these specimens is complete and the second consists of a large fragment of the body whorl. Another large fragment of the body whorl of this species was collected from the south side of Farley Creek at TU 819. This fragment measures 40 mm from the end of the siphonal canal to the shoulder of the body whorl and is larger than any of the other specimens. An additional example of this species was also collected by Emily Vokes, on Tenmile Creek at TU 546

> CYMATIUM (GUTTURNIUM) RITTERI Schmelz, n.sp. Text figs. 1, 2

Diagnosis: Shell is triangular shaped. A small portion of the protoconch, remaining in the holotype, is smooth and glossy, and becomes abruptly sculptured with weak, raised cords and axial ridges about halfway through its development. The surface of the last four and one-half teleoconch whorls is covered with gradually more pronounced raised cords and axial ridges. On the teleoconch whorls all of the spiral cords cross over the axial ridges. Fine vertical growth lines also cross over the cords and intervening spaces, giving the shell a faint cross-hatched appearance. The growth lines are most prominent on the spiral cords. On the penultimate whorl there are seven to eleven prominent axial ridges; anterior to the suture there are three narrow spiral cords followed by two to three alternating pairs of wide and narrow ones. On the body whorl there are two prominent corrugated axial varices, which are separated by two to three axial ridges. Anterior to the body whorl suture are three to four narrow spiral cords. These are followed by alternating pairs of wide and narrow spiral cords. Aperture elongateoval; with numerous plicae extending across the parietal wall. The outer lip of the aperture is crenate and has a set of three short teeth near the anal area followed by six pairs of short teeth, evenly spaced along the remainder of the opening. The siphonal canal is long and slender with the anterior half bent dorsally.

Holotype: USNM 445741; height 30 mm, diameter 16.5 mm

Type locality: TU 951, south bank of Tenmile Creek, about 1 1/2 miles west of Chipola River (SE 1/4 Sec. 12, T1N, R10W), Calhoun County, Florida

Paratype: USNM 445742; height 39 mm, diameter 20 mm; locality TU 546, Tenmile Creek, Calhoun County, Florida.

Discussion: A review of the literature reveals that this is the first species of Cymatium to be recognized from early Miocene deposits; however, Maury (1925) described a species of Cymatium from the early Miocene Pirabas Formation in Brazil as Murex williamsi. The species described here differs from Maury's specimen in that it has a more angulate body shape and the penultimate whorl has fewer axial ridges (seven to eleven vs. sixteen). In Maury's specimen all of the teleoconch whorls are sculptured with spiral cords of unequal thickness but in Cymatium ritteri there are three to four narrow cords anterior to the suture followed by alternating cords of unequal thickness. Maury (1925) also noted that the growth lines on her specimen are most apparent in the intervals between the cords but in the new species the growth lines are very faint in the interval between the cords and most prominent on the cords.

Representatives of the genus Cymatium have been reported from a number of different Cenozoic deposits. Cymatium ogygium Woodring (1959, p. 204, pl. 27, figs. 4,6) was described from the south coast of Pato Horqueto Island in the Panama Canal Zone in beds of early Oligocene age and is the oldest species of this genus found in the Caribbean region. A related species, Cymatium amnicretum MacNeil, 1984, was reported from deposits of a similar age by MacNeil and Dockery (1984, p. 116, pl. 18, figs. 4, 5). The latter species is probably also related to Guttur-

nium gracile gurabonicum Maury (1917, p. 107, pl. 17, fig. 10) from the late Miocene Gurabo Formation of the Dominican Republic.

In Florida, Mansfield (1930, p. 94, pl. 12, fig. 10) described a single immature specimen as Cymatium floridanum, from the early Pliocene deposits of the Jackson Bluff area. A number of specimens of this species have since been obtained by collectors from the APAC pit in Sarasota (personal observation).

There have been numerous reports of Cymatium in the Pleistocene of the Caribbean area. Cymatium pileare (Linné, 1758) was collected from Pleistocene sediments of Costa Rica by Gabb (1881) and by Weisbord (1962) from Barbados and the Panama Canal Zone. Weisbord (1962) also identified the subspecies, Cymatium pileare martinianum (d'Orbigny, 1846) from northern Venezuela as well as Cymatium parthenopeum (Von Salis, 1793). This latter species has also been reported from the upper Miocene of Calolira in Europe by Watson (1886). Weisbord was the first to identify Cymatium krebsii Mörch, 1877, from Pleistocene deposits in northern Venezuela, Hoerle (1970) reported Cymatium cingulatum (Lamarck, 1822) from the Bermont beds at the Belle Glade Rock Pit.

## LOCALITY DATA

546. Chipola Fm., Tenmile Creek, about 1 3/4 miles west of Chipola River (NE 1/4 Sec. 12, T1N, R10W), Calhoun Co., Florida (= USGS 2212, "one mile west of Bailey's Ferry").

819. Chipola Fm., Farley Creek, 0.2 mile west of bridge of Florida Highway 275 (SW 1/4 Sec. 21, T1N, R9W), Calhoun Co.,

Florida.

951. Chipola Fm., Tenmile Creek, about 1 1/4 miles west of Chipola River (SE 1/4 Sec. 12, T1N, R10W), Calhoun Co., Florida.

1098. Chipola Fm., Tenmile Creek, south bank just east of power line crossing (SE 1/4 Sec. 12, T1N, R10W), Calhoun Co., Florida.

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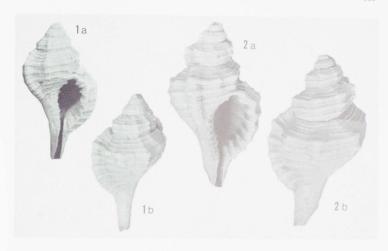
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Text fig. 1, USNM 445741 (holotype); height 30 mm, diameter 16.5 mm; locality TU 951. Text-fig. 2, USNM 445742 (paratype); height 39 mm, diameter 20 mm; locality TU 546. (Both X 1 1/2)