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NOTES ON THE FAUNA OF THE CHIPOLA FORMATION - XXXI  
ON THE OCCURRENCE OF THE GENUS  
CORALLIOPHAGA (MOLLUSCA: BIVALVIA)

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In 1898, Dall published figures of a shell from the "Ballast Point silex beds" that he named *Coralliophaga elegans* (pl. 25, figs. 2, 2a). In 1903 (p. 1499) he described the species as *C. elegantula*, noting that the specific name *elegans* had been used by Deshayes in 1824, and listing the occurrences as "Upper Oligocene of the Chipola marl, Chipola River, Florida, and of the silex beds at Ballast Point, Tampa Bay." Julia Gardner, however, did not mention this name in her monograph of the fauna of the Alum Bluff Group (1926-1950) and Mansfield in his "Mollusks of the Tampa and Suwannee Limestones of Florida," states (1937, p. 228): "Although Dall reports this species in the Chipola formation, I have not seen it from that locality." Insofar as I have been able to ascertain, this erroneous citation is the only mention of the genus *Coralliophaga* in the Chipola fauna.

Examination of the extensive Chipola collections at Tulane University has yielded a number of specimens referable to *Coralliophaga coralliophaga* (Gmelin) from seven localities, plus four specimens having a *Coralliophaga*-like hinge but lacking all radial ornamentation; these come from three localities, two of which have not yielded representatives of *C. coralliophaga*.

Family TRAPEZIIDAE Lamy, 1920  
Genus CORALLIOPHAGA Blainville,  
1824

*Coralliophaga* BLAINVILLE, 1824, Man. de Malac. et Conchyl., p. 560.

Type species: *Coralliophaga carditoidea* Blainville, 1824 (= *Chama coralliophaga* Gmelin, 1791), by monotypy. Recent: Red Sea, Indian Ocean, and western Pacific Ocean northward to Japan; Bermuda, North Carolina to Florida,

Texas, Antilles and Caribbean, from Costa Rica eastward to northern Brazil.

*Description*: "Coquille ovale, alongée, finement radiée du sommet à la base, cylindrique, équivalente, très-inéquilatérale; les sommets dorsaux très-antérieurs et peu marqués; charnière subsimilaire; deux petites dents cardinales, dont une est subbifide, au-devant d'une sorte de dent lamelleuse, sous un ligament extérieur assez faible; deux impressions musculaires, petites, arrondies, distantes, réunies par une impression palléale étroite, et assez excavée en arrière." (Blainville, 1824)

CORALLIOPHAGA CORALLIOPHAGA (Gmelin)  
Figures 1-3

*Chama coralliophaga* Gmelin, 1791, *Systema Naturae*, ed. 13, p. 3305.

*Cardita dactylus* Bruguière, 1792, *Encycl. Méth.*, *Hist. Nat. Vers.*, v. 1, p. 412.

*Cypricardia coralliophaga* Lamarck, 1819, *Hist. Nat. Anim. s. Vert.*, v. 6, pt. 1, p. 28.

*Coralliophaga carditoidea* Blainville, 1824, *Man. de Malac. et Conchyl.*, p. 560, pl. 76, fig. 5.

*Petricola carditoidea* (Blainville). Sowerby, 1839, *Conch. Man.*, p. 119, pl. 28, fig. 92.

*Cypricardia hornbeckiana* D'Orbigny, 1842, *Moluscos in de la Sagre*, *Hist. Fis. Pol. y Nat.*, Isla de Cuba, pt. 2, *Hist. Nat.*, v. 5, atlas, pl. 26, figs. 33, 34; text, p. 312 [1846].

*Description*: Shell relatively thin, somewhat variable in shape, reflecting its habit of living in burrows of other animals, usually elongately ovate, somewhat modioliform with short, rounded, anterior end and broader, convex posterior one; umbones near anterior end, low, inconspicuous; valves ornamented with fine radial ribbing that is weak on anterior margin immediately posterior to umbones, and with concentric growth lines that tend to develop lamellate projecting ridges posteriorly and posteroventrally; anterior adductor scar relatively small, at anterior extremity, posterior adductor scar larger, somewhat elongate along dorsal margin; pallial sinus short, angular; hinge with two relatively elongate, narrow cardinal teeth and one posterior lateral tooth in each valve.

*Figured specimens*: Fig. 1, USNM 445385; length 27.7 mm, height 11.9 mm, diameter (right valve) 4.8 mm; locality TU 555, Chipola River. Fig. 2, USNM 445386; length 24.6 mm, height 9.6 mm, diameter (paired valves) 4.9 mm; locality TU 550, Chipola River. Fig. 3, USNM 445387; length 19.9 mm, height 11.5 mm, diameter (left valve) 4.7 mm; locality TU 1196, Farley Creek.

*Other Chipola Formation occurrences*: TU 555 - two right and one left valves; TU 821 - one right valve; TU 830 - one paired valve specimen, plus one right valve; TU 1048 - three paired valve

specimens; TU 1049 - two right valves; TU 1196 - 3 paired valve specimens.

*Discussion*: As far as the writer has been able to ascertain, the present record of the occurrence of *Coralliophaga coralliophaga* in the fauna of the Early Miocene (Burdigalian) Chipola Formation represents the geologically oldest record of its presence in the faunas of the western Atlantic region. Maury (1917, p. 197) reported it from the Late Miocene Cercado Formation, at Caimito on the Rio Cana, Dominican Republic, and Dall (1903, p. 1498) from the uppermost Pliocene of the Caloosahatchee River, plus Pleistocene occurrences in the West Indies.

The great variation in shape of the shells of *C. coralliophaga* appears to be caused by the nature of the particular hole occupied by the animal which, as noted by Perry (1940, p. 69) "lives in burrows of other mollusks, sometimes several in one cavity, and occasionally with the original owner." Bales (1944, p. 48) reported that in the Florida area it usually occurs in *Lithophaga* burrows.

For an extensive listing of earlier papers relative to this species see Solem (1954, p. 77).

CORALLIOPHAGA DELIQUIRADA, n. sp.  
Figures 4, 5

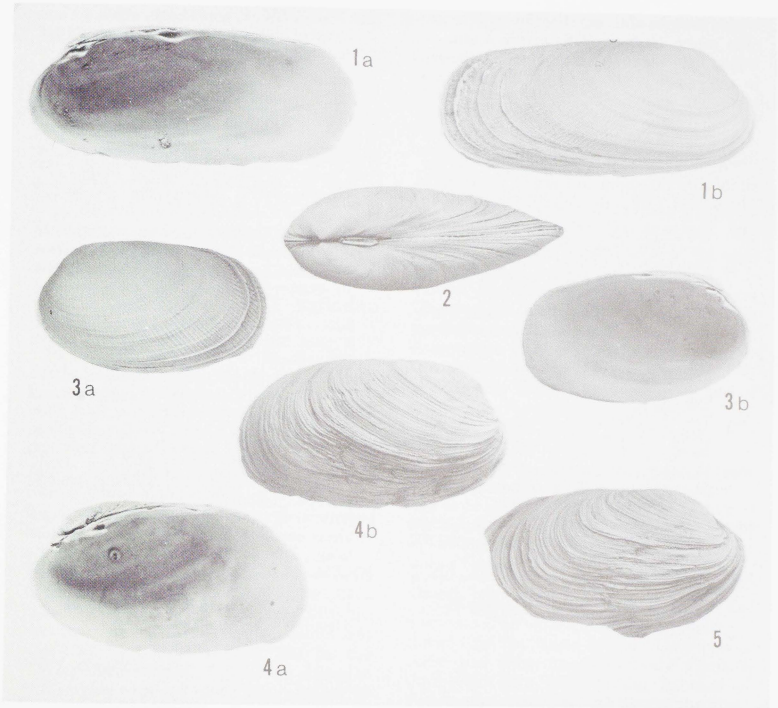
*Description*: Shell with a shape similar to that in the rather broad, less elongate variants of *C. coralliophaga*, ornamented by strong, exceedingly irregular concentric laminations very unlike those on the valves of the genotypic species, and with no radial ribbing; hinge and pallial sinus similar to those of *C. coralliophaga*.

*Holotype*: USNM 445388; length 23.7 mm, height 13.1 mm, diameter (right valve) 5.7 mm (Figure 4).

*Paratype*: USNM 445389; length (incomplete) 23.1 mm, height 13.3 mm, diameter (right valve) 5.6 mm; locality TU 1050, Chipola River (Figure 5).

*Type locality*: TU 1196, Chipola Formation, Farley Creek, north bank about 0.8 mile east of bridge on Florida Highway 275 (NE 1/4 Sec. 21, T1N, R9W), Calhoun County, Florida.

*Discussion*: There are in the Tulane Collections four valves of this species from three localities: TU 458, Chipola River; TU 1050, Chipola River; and TU 1196 (two valves), Farley Creek. These are here named as a new species rather than an ex-



## FIGURES

- 1-3. *Coralliophaga coralliophaga* (Gmelin) (X 2)
1. USNM 445385; length 27.7 mm; height 11.9 mm, diameter (right valve) 4.8 mm.  
Locality: TU 555, Chipola Formation, Chipola River, Florida.
  2. USNM 445386; length 24.6 mm, height 9.6 mm, diameter (paired valves) 4.9 mm.  
Locality: TU 550, Chipola Formation, Chipola River, Florida.
  3. USNM 445387; length 19.9 mm, height 11.5 mm, diameter (left valve) 4.7 mm.  
Locality: TU 1196, Chipola Formation, Farley Creek, Florida.
- 4, 5. *Coralliophila deliquiradia* H. E. Vokes, n. sp. (X 2)
4. USNM 445388 (holotype); length 23.7 mm, height 13.1 mm, diameter (right valve) 5.7 mm.  
Locality: TU 1196, Chipola Formation, Farley Creek, Florida.
  5. USNM 445389 (paratype); length (incomplete) 23.1 mm, height 13.3 mm, diameter (right valve) 5.6 mm.  
Locality: TU 1050, Chipola Formation, Chipola River, Florida.

tre variant of *C. coralliophaga*. The specific name is derived from the Latin *deliquus*, = "lacking," plus *radii*, = "rays," in reference to the absence of any radial ornamentation.

#### LOCALITY DATA

The following are Tulane University fossil locality numbers. All are in the Chipola Formation, Calhoun County, Florida.

458. East bank of Chipola River, above Farley Creek (SW 1/4 Sec. 20, T1N, R9W).
550. East bank of Chipola River, 1 1/4 miles below "Bailey's Ferry" (NE 1/4 Sec. 20, T1N, R9W).
555. East bank of Chipola River, about 1000 ft. above mouth of Fourmile Creek (SW 1/4 Sec. 29, T1N, R9W).
821. Farley Creek, 0.1 mile east of bridge on Florida Highway 275 (SW 1/4 Sec. 21, T1N, R9W).
830. Tenmile Creek, at power line crossing about one mile west of Chipola River (SE 1/4 Sec. 12, T1N, R10W).
1048. Farley Creek, south bank, about 0.8 mile east of bridge on Florida Highway 275 (NE 1/4 Sec. 21, T1N, R9W).
1049. Farley Creek, south bank, about 1.0 mile east of bridge on Florida Highway 275 (NE 1/4 Sec. 21, T1N, R9W).
1050. Chipola River, west bank, immediately below power line crossing, and directly across river from loc. TU 554 (SW 1/4 Sec. 17, T1N, R9W).
1196. Farley Creek, north bank, about 0.8 mile east of bridge on Florida Highway 275 (NE 1/4 Sec. 21, T1N, R9W).

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