

Geology along the Chipola River in southern Jackson and northern Calhoun Counties, Florida.

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The shallow geology of the central Florida panhandle is comprised of generally flat-to-slightly-dipping Neogene clastic and carbonate sedimentary rocks. Most of these rocks and sediments were deposited in shallow seas which covered our state during the last 30 million years. Local rivers and streams, such as the Chipola River, commonly cut down into these sediments exposing them in the stream banks and bottoms.

Gently-southwestward-dipping marine carbonate rocks of the Oligocene Suwannee Limestone (30 million years old) line the bed of the Chipola River in southern Jackson County. Near the Jackson-Calhoun County line, younger carbonates of the the Miocene Chattahoochee Formation (23-25 myo) lap onto the Suwannee Limestone sediments from the south. From this point southward to Tenmile Creek, Chattahoochee Formation limestone and dolostone comprise the streambed of the Chipola River (see Figure 1). In northern Calhoun County, Younger Miocene-Pliocene age

sediments of the Alum Bluff Group unconformably overlie the Chattahoochee Formation carbonates in this area and crop out in the banks along some stretches of the stream. In this area, the Alum Bluff Group sediments are commonly fossiliferous, containing numerous marine mollusks, corals, and microfossils which lived in a shallow sea which once covered this portion of Florida. About five miles south of State Road 20 the Alum Bluff Group sediments in turn dip beneath younger Quaternary sediments.

In the late 1800's geologists working in the Florida panhandle first described the abundantly fossiliferous marls and sands exposed along the north-central Calhoun County portion of the Chipola River. Burns (1889) suggested the name Chipola Formation for the shelly, sandy marl exposed along the river in the vicinity of its juncture with Tenmile Creek. The numerous marine fossils in these 17 million-year-old beds attracted considerable paleontologic attention. Over 400 species of fossil mollusks have been recorded from the Chipola Formation to date. Today the sediments described in the original Chipola Formation are included stratigraphically within the Alum Bluff Group.

References:

- Burns, F., 1889, in Dall, W.H., and Harris, G.D., 1892, Correlation Papers, Neocene: U.S. Geological Survey Bulletin 84, 349 p.
Gardner, J.A., 1926-1950, The molluscan fauna of the Alum Bluff Group of Florida: U.S. Geological Survey Professional Paper 142 A-H.
Weisbord, N.E., 1971, Corals from the Chipola and Jackson Bluff Formations of Florida: Florida Bureau of Geology Bulletin 53, 105 p.

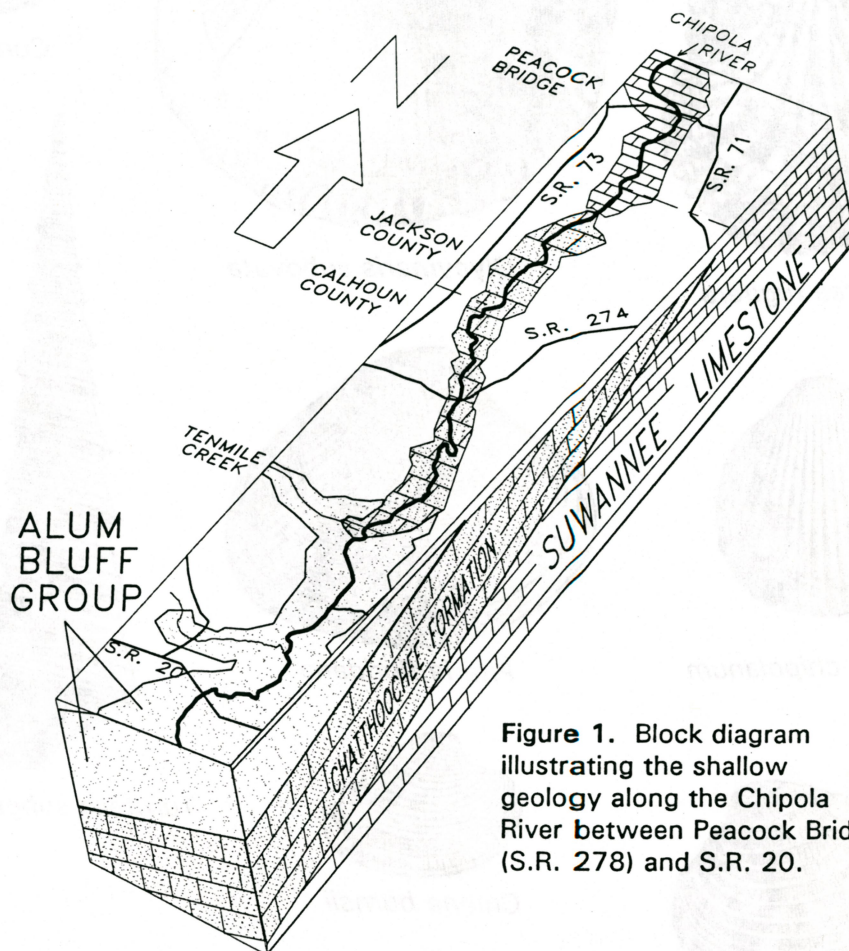
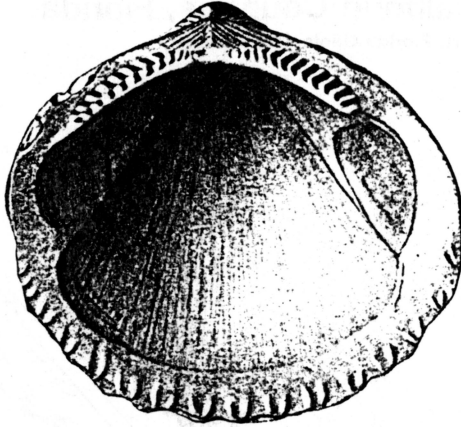


Figure 1. Block diagram illustrating the shallow geology along the Chipola River between Peacock Bridge (S.R. 278) and S.R. 20.

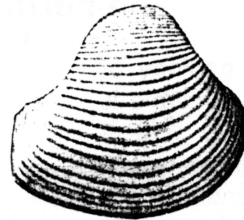
Some Common Fossils from the Chipola Formation Type Area



Ostrea rugifera



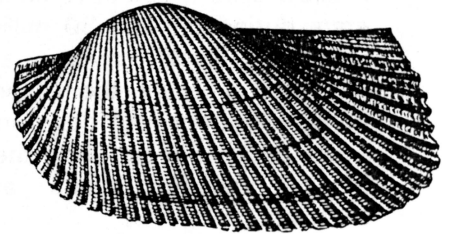
Glycymeris subovata



Corbula chipolana



Ervilia chipolana



Arca hypomela



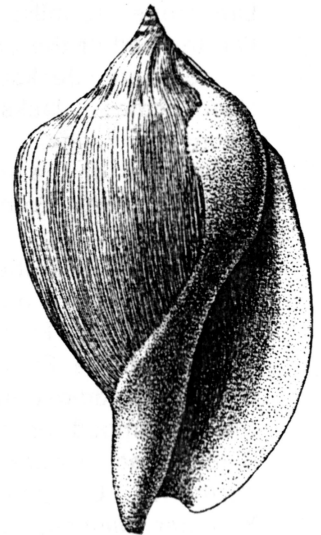
Cardium chipolanum



Pitaría floridana



Turritella subgrundifera



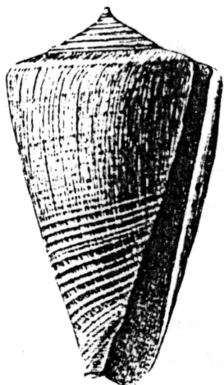
Orthaulax gabbi



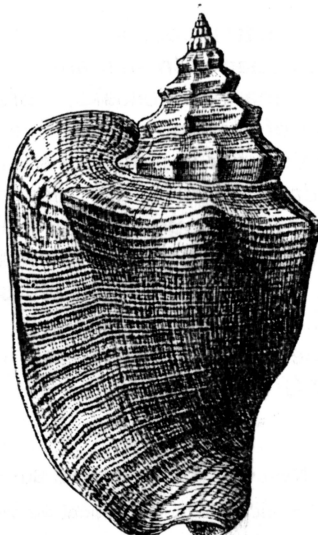
Chione chipolana



Chione burnsii



Conus sulculus



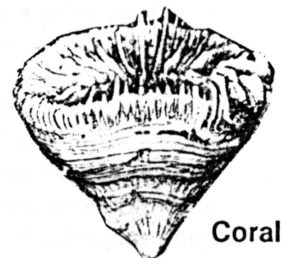
Strombus aldrichi



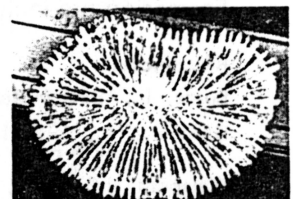
Mitra prodroma



Oliva liodes



Coral



Antillophyllia chipolana