

MDEQ Office of Geology Fossil Website

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The Office of Geology has recently updated its [fossil website](#) which is a great source for geologists, students, and those interested in Mississippi's rich geological past. Fossil mollusks of the Late Eocene Moodys Branch Formation are illustrated on the website in a unique systematic arrangement. The website is also linked to the MolluscaBase website, an authoritative site for molluscan systematics of living and fossil taxa. Mollusks are the largest marine phylum of animals and comprise about 23 percent of all the named marine organisms. As shelled animals, they preserve well in the fossil record. Some 85,000 living (extant) species of mollusks are recognized. Recognized fossil species add another 60,000 to 100,000 species. The MolluscaBase contains 82,706 accepted species and 13,325 accepted fossil-only species.

A total of 239 species and 500 images for the Moodys Branch mollusks, with each image showing multiple views, are available on the website (Figure 1). To view these images requires clicking on one of four listed molluscan classes, [Bivalvia](#), [Cephalopoda](#), [Gastropoda](#), or [Scaphopoda](#). The website is designed to be used on a computer or smartphone by scrolling through the captioned images.

Office of Geology - Surface Geology

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Fossils

Moodys Branch Formation

- [Bivalvia](#) - 61 Species, 158 Images
- [Cephalopoda](#) - 2 Species, 5 Images
- [Gastropoda](#) - 170 Species, 331 Images
- [Scaphopoda](#) - 6 Species, 6 Images

The molluscan seashells of the Moodys Branch Formation lived in a tropical/subtropical sea that advanced across the Gulf Coastal Plain of the Southeastern United States in a global sea level rise that occurred in the Late Eocene Period around 38 million years ago. They lived in the nearshore sands and shallow offshore waters of the advancing seaway. The preservation and diversity of these fossil shells are exceptional and are only rivaled by Late Eocene faunas of this age in the Paris Basin of France. Some shells show their ancient color patterns under ultraviolet light.

Fossil mollusks illustrated here are largely from the collections of Mississippi Department of Environmental Quality Office of Geology's facility at 2525 North State Street, Jackson, Mississippi, and are designated with figured specimen numbers. Others are from various museum collections as designated. Many were originally illustrated in Office of Geology Bulletin 120. Illustrations here are in higher resolution and in several views. Image files are arranged alphabetically and then systematically under the Classes Bivalvia, Cephalopoda, Gastropoda, and Cephalopoda.

Figure 1. MDEQ Office of Geology Fossil website.

Figure 2 shows the heading of the Class Gastropoda page and the first two species scrolling down. Figure 3 is one of six images of gastropod species 50: *Platyptera extenta* (Conrad in Wailes, 1854). The image includes six views of the specimen in the round with the middle view photographed under ultraviolet light to reveal the original color pattern. Images are available in small, large, and high resolution sizes, are downloadable, and can be shared on social media.

Mississippi Department of Environmental Quality

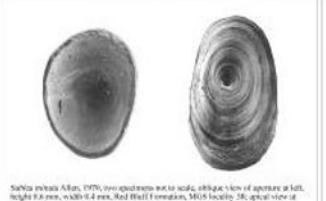
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Home Fossils : Bivalvia Cephalopoda Gastropoda Scaphopoda

Class Gastropoda

G001 - Gastropoda (Class) > Vetigastropoda (Subclass) > Lepetelloidea (Superfamily) > Lepetellidae (Family) > Sablea (Genus)

1: *Sablea minuta* Allen, 1970



Sablea minuta Allen, 1970, two specimens not to scale, oblique view of aperture at left, height 8.8 mm, width 4.4 mm, Red Wall Formation, MGS locality 38; apertural view at right, height 2.0 mm, width 1.1 mm, Red Wall Formation, MGS locality 37. MGS figure specimen 2118 at left and 2117 at right.

[Hi-Res](#)

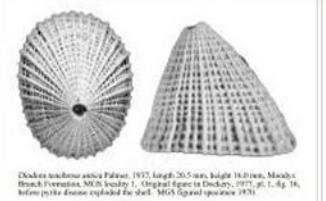


Sablea minuta Allen, 1970, length 2.0 mm, width 1.0 mm, height 1.2 mm, Moody Branch Formation, MGS locality 177. MGS figure specimen 2477.

[Hi-Res](#)

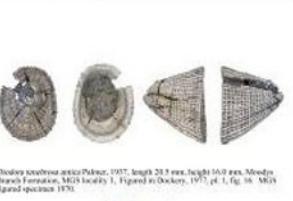
G002 - Gastropoda (Class) > Vetigastropoda (Subclass) > Fissurelloidea (Superfamily) > Fissurellidae (Family) > Diodorinae (Subfamily) > *Diodora* (Genus)

2: *Diodora tenebrosa antica* Palmer, 1947



Diodora tenebrosa antica Palmer, 1947, length 20.5 mm, height 18.0 mm, Moody Branch Formation, MGS locality 1. Original figure in Dickey, 1977, pl. 1, fig. 18. MGS figure specimen 1800.

[Hi-Res](#)



Diodora tenebrosa antica Palmer, 1947, length 20.3 mm, height 16.0 mm, Moody Branch Formation, MGS locality 1. Figured in Dickey, 1977, pl. 1, fig. 16. MGS figure specimen 1750.

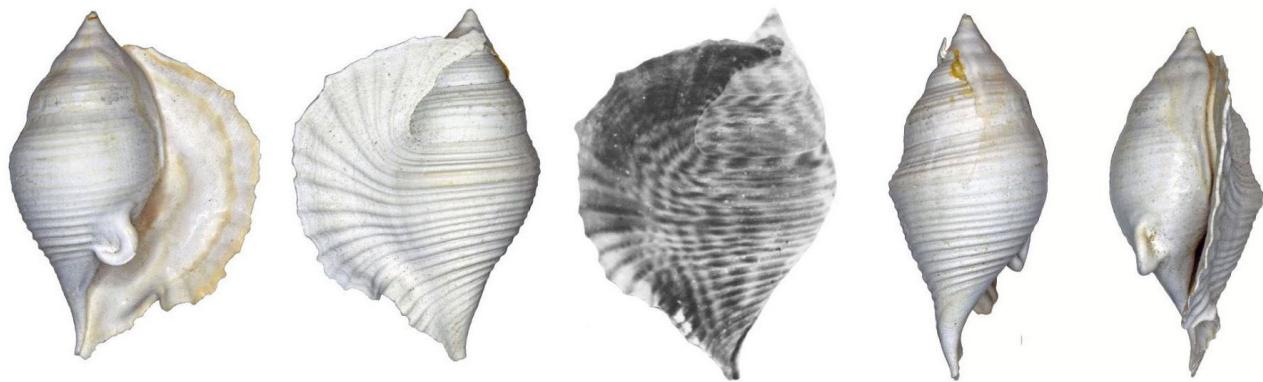
[Hi-Res](#)



Diodora tenebrosa antica Palmer, 1947, length of apertural specimen 5.2 mm, height 2.4 mm, Moody Branch Formation, MGS locality 1. MGS figure specimen 2275.

[Hi-Res](#)

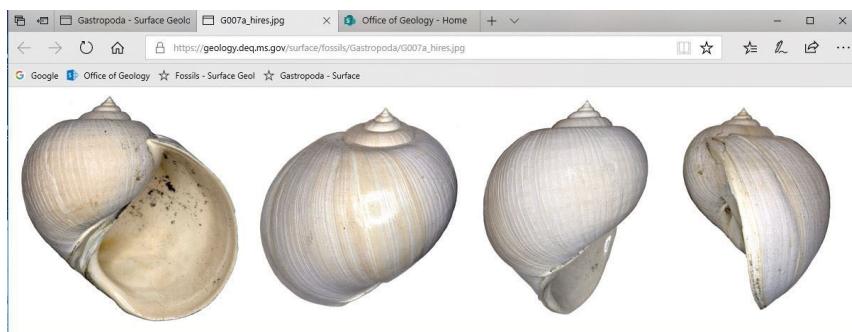
Figure 2. The Gastropod webpage showing the first two species and scrollable to show 170 species and 331 images.



Platyoptera extenta (Conrad in Wailes, 1854), height 40.0 mm, width 29.5 mm, Moodys Branch Formation, MGS locality 1. Figured in Dockery, 1977, pl. 4, fig. 13. MGS figured specimen 2020.

Figure 3. One of six images of species 50 *Platyoptera extenta* (Conrad in Wailes, 1854).

Figure 4 is an example of a high resolution enlargement of the spire of gastropod species 7: *Globularia morgani* (Johnson, 1899). Figure 5 is a high resolution download of a more strongly textured species, gastropod species 58: *Distorsio jacksonensis* (Meyer, 1885).



Globularia morgani (Johnson, 1899), height 28.5 mm, width 21.0 mm, Moodys Branch Formation, MGS locality 1. Figured in Dockery, 1977, pl. 8, fig. 2. MGS figured specimen 2045.

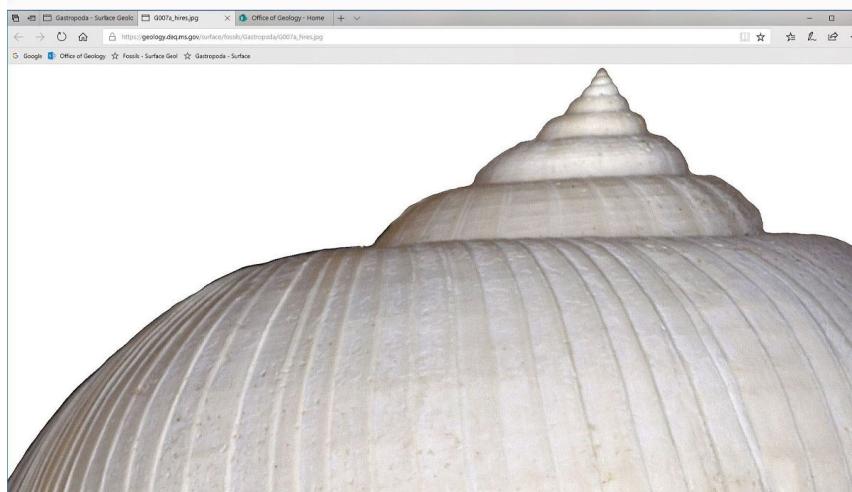


Figure 4. Views of gastropod species 7 *Globularia morgana* (Johnson, 1899) at top, with a high resolution enlargement of the spire of the third image at bottom.

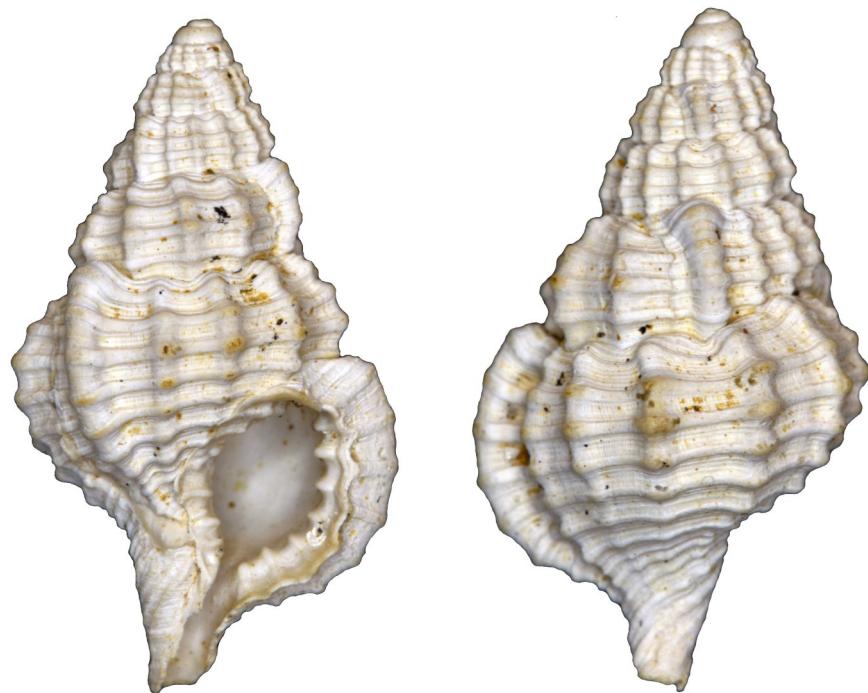


Figure 5. High resolution download in part (2 of 4 views) of gastropod species 40 *Distorsio jacksonensis* (Meyer, 1885).

Check out the new website, and if you have any questions or need more information, contact the [Office of Geology](#). Also, to identify your own finds, go to the MDEQ main website for the “[Ask a Geologist](#)” page.