

REVIEWS

MOLLUSCA OF THE MOODYS BRANCH FORMATION, MISSISSIPPI, by David T. Dockery III. Published by the Mississippi Geological, Economic and Topographical Survey, Jackson, Mississippi, Bulletin 120, 1977, 212 pp., 10 figs., 28 pls., index, \$6.00

The Moodys Branch Formation forms the basal part of the Jackson Group (upper Eocene) and consists of fossiliferous, glauconitic sands, calcareous clays, and some limestones. The Moodys Branch Formation underlies the Yazoo Clay into which it grades upwards. The Jackson Group and its well-known fauna has been the subject of many significant studies since 1856 when Timothy A. Conrad described and subdivided the Eocene beds of the Gulf Coast Area. Among these are W. H. Dall (1890, 1898, 1900, and 1903), C. Wythe Cooke (1918), and Gilbert D. Harris and Katherine V. W. Palmer (1946, 1947). In this Study by David Dockery, 265 molluscan species or subspecies are reported, of which 213 are illustrated, and 20 are new taxa. The text is illustrated with 28 plates containing 490 figures, some illustrating the original color pattern remnants under ultraviolet light radiation. The systematic study, quite obviously, is most definitive.

In addition, the depositional environment of the Moodys Branch Formation is described in detail. The Moodys Branch molluscs lived in shallow marine waters near a retrograde shoreline. The encroaching shoreline of the transgressive Jackson sea is described as a marine destructional phase of subsiding delta systems in the underlying Claiborne Group. The climate is interpreted as tropical or subtropical, based on the species of molluscs identified, and their diversity. Three faunal provinces are recognized, and cross-sections illustrating the author's analysis of depositional environments are presented. The stratigraphy of the Northern Terrigenous Facies, the Southern Terrigenous Facies, and the Southern Carbonate Facies as recognized within the Moodys Branch section is described fully. This is a most significant contribution to the knowledge of Eocene stratigraphy. The author is nearing completion of his doctoral dissertation on the bivalves of the Vicksburg Group (lower Oligocene) at Tulane University of Louisiana.

MOLLUSCAN Assemblages of the Mid-Holocene New Orleans Barrier Trend, by Eileen E. Hollander, and David T. Dockery III. Published by Sigma Gamma Epsilon: *The Compass*, vol. 55, no. 1 (Fall, 1977), pp. 1-29, 2 figs., 1 table, 8 pls., \$3.00 (\$8.00 per annum); available through the Oklahoma Geological Survey, Norman, Oklahoma.

Dredging activity for the deepening of the Intracoastal Waterway in eastern Orleans Parish, Louisiana, exposed a marine molluscan assemblage in the dredged material from a depth of 27 meters below the present surface. The source of these molluscs is from buried barrier sands which have been engulfed by the terrigenous clastics of the St. Bernard Delta Complex (c. 3000 to 2600 years B.P.). Two distinct ridge trends have been dated previously, 1) the New Orleans trend, 5100-4400 years B.P., and 2) the Bayou Sauvage-Hancock County trend, 3100-2800 years B. P.

The authors have described 43 species of gastropods, 50 bivalves, and 2 scaphopods from the dredging sites, with a few representatives of phyla other than the Mollusca. The environment of this fauna is compared with the shallow shelf environment of the Gulf side of the present Mississippi-Alabama barrier trend. Among the species present are several which indicate nonturbid, deeper marine conditions. The fauna is interpreted as from the Gulf side of the New Orleans barrier trend, in mid-Holocene time approximately 5000-4000 years B.P. Both authors are doctoral candidates preparing dissertations at the Tulane University of Louisiana.