

the **result** of a careful study of the contained fossils. Eighty out of **ninety-six** recognized species are represented in the recent fauna; **83 per cent** of which, according to Lyell's original classification, would place **these** beds unquestionably in the Pliocene.

FONTAINE, WILLIAM M.—*Potomac Strata at Haywood, Chatham County, N. C.* U. S. Geol. Survey, 10th Ann. Rpt. (1888-1889), 1890, p. 174.

Announces the discovery of supposed Potomac strata near Haywood, N. C.

McGEE, W J—*Southern Extension of the Appomattox Formation.* Amer. Jour. Sci., 3d ser., vol. 40, 1890, pp. 15-41.

Deposits referable to this formation are said to occur throughout the extent of the Atlantic and Gulf Coastal Plains as far as the Rio Grande. In **North** Carolina it forms a terrane 40 or 50 miles wide on the Roanoke and **extends** southward through the Carolinas in a broad zone. In **Virginia** and the Carolinas the deposits are said to lie at elevations of **between** 25 and 250 feet above tide. As regards its age, the formation is said to **correspond** roughly with the Pliocene.

SHALER, N. S.—*General Account of the Fresh-water Morasses of the United States, with a Description of the Dismal Swamp District of Virginia and North Carolina.* U. S. Geol. Surv., 10th Report, pp. 255-339, pls. 6-19, Washington, 1890.

Describes the Dismal Swamp district (pp. 313-339) as regards the character of the materials, the topographic features, the character of the **animal** and vegetable remains, etc. On the evidence of some fossils found **near** Suffolk, Va., the writer believes that the entire district is **underlain** by Pliocene strata.

An escarpment is described which forms the western boundary of the district, and which is believed to mark a former shore line. This is called the **Nansemond** Escarpment. A higher plain of which this escarpment forms the eastern boundary is designated the Nansemond Bench.

1891.

CLARK, WILLIAM BULLOCK.—*Correlation Papers—Eocene.* U. S. Geol. Surv., Bull. 83, 173 pp., 2 maps. Washington, 1891.

This paper contains a discussion of the previously published literature pertaining to the Eocene of the United States together with a correlation of the **Eocene** deposits in the several areas.

McGEE, W J—*The Lafayette Formation.* U. S. Geol. Surv., 12th Ann. Rept., 1890-91, Pt. I, pp. 347-521.

The author presents a monographic study of the Lafayette formation in the **eastern** United States.

The term Lafayette is here used instead of "Appomattox," which was the **original** designation of the formation. As to age, the formation is **regarded** as late Neocene. The character, distribution, and stratigraphic position of the formation in North Carolina are described.

STANTON, T. W.—*Cretaceous and Tertiary Strata Near Wilmington, N. C.* Amer. Geol., vol. 7, pp. 333-334, 1891.