

very homogeneous through considerable thicknesses. In certain horizons the shells of organisms are found commingled with the glauconitic materials in such numbers as largely to make up the beds, producing what is known as a greensand marl, and these beds are at times so indurated as to form limestone layers. When the glauconite is weathered the deposits lose their characteristic gray and green color and generally become lighter gray with reddish or reddish brown streaks or bands, or may become entirely of the latter color. In this condition they are often cemented into a ferruginous sandstone. The unweathered deposits are found mainly in Charles and Prince George's counties, while the weathered beds appear chiefly to the northward in Anne Arundel county and upon the eastern shore of the Chesapeake.

The fossils of the Pamunkey formation are numerous and characteristic and admit of separation into two clearly defined faunal zones, the lower of which has been described as the Aquia Creek stage and the upper as the Woodstock stage.

The Aquia Creek stage, so called from its typical development along the banks of Aquia creek, a tributary of the Potomac, contains a highly characteristic fauna, which has caused the correlation of this division with the lower Eocene of the southern Atlantic and Gulf states. No satisfactory stratigraphic limits have as yet been assigned to this division and the deposits seem to grade gradually upward into the overlying division.

The Woodstock stage, so called from its typical development at Woodstock, Va., on the southern bank of the Potomac, about 15 miles below Aquia creek, is characterized by a fauna which has been shown to be the same as that contained in the middle Eocene in the Gulf states. As above stated, no satisfactory stratigraphic line has as yet been detected separating this division from that which is found beneath it, so that it may be regarded for the present simply as a faunal zone.

THE NEOCENE PERIOD.

The Neocene deposits of Maryland occupy a broad area in the eastern portion of the state and consist of strata which attain greater thickness than those of any other period represented in the Coastal