Battle Ground, in Monmouth county, New Jersey, extends from New Jersey southward across Delaware into Maryland, but is much less extensively or typically developed in the state of Maryland than to the northward, although some of its characteristic features are still prominent. The Monmouth formation lies to the east of the Matawan deposits above described and forms a narrow belt crossing Cecil, Kent, Anne Arundel and portions of Prince George's counties, but gradually disappears beyond the valley of the Patuxent as a result of the transgression of the Eocene deposits.

Upon the eastern shore of Maryland we find the three subdivisions of the Monmouth formation which characterize the New Jersey deposits represented, viz.: the basal red sands (Mount Laurel sands), overlain by a well defined marl bed (Navesink marl), and this in turn capped by slightly glauconitic red sands (Redbank sands); but upon the western shore of Maryland the differentiation of the Monmouth formation into these several parts is no longer possible, the formation being represented by fine pinkish sands, which are sparingly glauconitic and which show no constant separation into lithologic zones. The deposits have a thickness of about 75 feet upon the eastern shore, but do not exceed 50 feet in Anne Arundel county, and gradually decline in thickness until their final disappearance beyond the Patuxent valley.

The fossils of the Monmouth formation are not strikingly different from those of the Matawan formation, although there are many which are distinctive; while at the same time the more characteristic forms of the Matawan formation are not found in the Monmouth. The deposits are of undoubted upper Cretaceous age.

The Rancocas Formation.—The Rancocas formation, so called from its typical occurrence in the valley of Rancocas creek in southern New Jersey, is well developed upon the eastern shore of Maryland, where it forms a broad belt across Cecil and Kent counties to the east of the Monmouth formation, and is the direct southward extension of similar deposits in New Jersey and Delaware. On the western side of the Chesapeake Bay it is found in only a few isolated patches in the extreme eastern portion of Anne Arundel county near the mouths of the Severn and Magothy rivers.