

The Rancocas formation consists of greensand marls, which in some localities are highly calcareous on account of the large number of shells of various molluscan forms. In general the deposits are quite arenaceous and are commonly less glauconitic than the same beds in New Jersey. The deposits have a thickness of from 50 to 60 feet in Kent county, where they are most extensively developed, but on the western shore of the Chesapeake they nowhere appear at the surface with a greater thickness than 4 or 5 feet.

The fossils of the Rancocas formation are highly characteristic and are in the main quite distinct from those which are found in the Matawan and Monmouth formations. Their upper Cretaceous age is, however, clearly apparent, and they are generally regarded as occupying a very high position in that division.

THE EOCENE PERIOD.

The deposits overlying the Cretaceous formations, above described, have, from a very early period, been regarded as of early Tertiary age, although our knowledge of them was confined to a few localities from which characteristic fossils had been obtained. Later study, however, has shown both the proper stratigraphic and paleontologic relations of these deposits, so that they are now well understood.

THE PAMUNKEY FORMATION.—The Pamunkey formation, so called from its highly characteristic development in the valley of the Pamunkey river in Virginia, extends across Maryland from northeast to southwest, through the counties of Kent and Queen Anne's on the Eastern Shore and of Anne Arundel, Prince George's and Charles in southern Maryland. Its area of outcrop constantly broadens from the Delaware line (to the north of which it is buried by the transgression of the Neocene deposits) toward the southwest, and in the valley of the Potomac river has a width of more than 15 miles.

The deposits of the Pamunkey formation are highly glauconitic and are found in their unweathered state either as dark gray or green sands or clays. The glauconite varies in amount from very nearly pure beds of that substance to deposits in which the arenaceous and argillaceous elements predominate, although the strata are generally