

Marlboro County and from thence, by way of Camden, Columbia, and Hamburg, into Georgia in the vicinity of Augusta. (See geologic map, Plate XVII, in pocket.)

The formation where present forms the basal division of the deposits of the Coastal Plain and rests directly upon the eroded surface of the basement rocks. The latter consist for the most part of early Paleozoic or Proterozoic igneous and metamorphic rocks, but also to a limited extent of sedimentary deposits of Triassic age (Newark). The upper surface of the basement rocks where they are overlain by the deposits of the Coastal Plain is very uneven. This is true not only with respect to minor details, but likewise as regards certain larger features. This unevenness is indicated, first, by the eastward extension at the surface of long tongues of the older rocks; second, by the outcrop of isolated patches of these rocks at considerable distances to the east of the Piedmont border; and, finally, by the depths at which they have been encountered in wells at various places.

The formation is overlain unconformably by the Black Creek ("Bladen") formation, or, where that is absent, by overlapping strata of the Eocene, Miocene, Pliocene, or Pleistocene periods. The beds of the Black Creek formation form the immediate superjacent covering along the southeastern edge of the belt of Patuxent occurrences. The observed width of overlaps of these beds above water level varies from a few miles to a maximum of at least 12 miles, the greatest width being in the valley of Cape Fear River in southeastern Cumberland County. The undulating Patuxent-Black Creek contact has been observed at various places on Cape Fear, Neuse, Contentnea, and Tar rivers.

The relations of the Patuxent formation to Tertiary and younger beds will be discussed in the order of age, beginning with the oldest. But one area of Eocene is known within the belt. This is in Harnett County, about 3 miles northeast of Spout Springs, where a bed of siliceous limestone, probably of very limited extent, is poorly exposed near the top of a hill. Its vertical position is perhaps about 300 feet above sea-level. It is believed to rest upon the Patuxent formation and is probably overlain by a surface covering of the Lafayette formation. From the southwestern edge of Wilson County northeastward to Roanoke River the Patuxent formation is perhaps continuously overlain by overlapping beds of Miocene age, except where the latter have been removed by stream erosion and by Pleistocene terracing processes along the valleys. From Neuse River to Roanoke River the observed Patuxent exposures are all low, nowhere exceeding 15 feet above water level of the streams. It is probable that from Wilson County north-