

A brief discussion of the main divisions of the Coastal Plain is presented here preliminary to the detailed descriptions which will follow.

MESOZOIC.

The Mesozoic formations are the basal deposits of the Coastal Plain, and they consist chiefly of sands, clays, and marls, for the most part unconsolidated. They include strata of Cretaceous age and certain basal beds that may be possibly Upper Jurassic, although there seems to be a growing belief on the part of geologists and paleontologists that the Mesozoic deposits of the Coastal Plain may be wisely considered as of Cretaceous age throughout, notwithstanding the claims hitherto made by certain leading authorities in vertebrate paleontology that the reptilian remains of the lower beds are Jurassic in their affinities.

CRETACEOUS.

The Mesozoic deposits will be considered in subsequent pages to belong entirely to the Cretaceous period. They constitute the largest element in the Coastal Plain series. The formations represent both the Lower and Upper Cretaceous.

Lower Cretaceous.

The Lower Cretaceous is represented from Maryland southward to the Gulf by formations consisting of gravels, sands, and clays. The arenaceous beds are often arkosic throughout this region and the deposits are stained by the hydrous oxides of iron and in some instances cemented to form a sandstone. They are extensively cross-bedded. The clays, which are at times very plastic and at other times more or less arenaceous, occur in large and small lenses. They have been extensively employed for economic purposes and many industries are based on them. Lignitic deposits frequently occur, and to the north iron ore beds also are found, which in Maryland were the chief source of the iron of colonial days.

The fossils of the Lower Cretaceous consist of dinosaurian and plant remains, the latter being mainly ferns, cycads, and conifers in the lower beds, with an increasing number of conifers toward the top of the series.

The Lower Cretaceous deposits in North Carolina are confined to the Patuxent formation, which consists of clays and sands, the latter prevailing arkosic. A small amount of lignite has also been observed. No determinable fossils have been secured.