

The fossils are quite distinct from those which are found in the Patapsco formation and abound much more largely in dicotyledonous types of vegetable life. Most of the species are identical with those found in the Amboy clays of New Jersey which form the northern extension of the formation as developed in Maryland.

THE MATAWAN FORMATION.—The Matawan formation receives its name from Matawan creek in Monmouth county, New Jersey, where the deposits of this horizon are typically developed. It is the most widely extended of the upper Cretaceous formations and reaches from the shores of the Raritan Bay across New Jersey, Delaware and Maryland to the Potomac river. Throughout Virginia it is buried beneath later deposits which have transgressed it, but it reappears again in the Carolinas. Within the limits of Maryland it forms a narrow belt which crosses southern Cecil and northern Kent counties, and then reappears upon the western shore of the Chesapeake in eastern Anne Arundel county, and thence continues southwesterly with constantly narrowing confines across Anne Arundel and Prince George's counties, during the latter part of its course appearing as a narrow band along the westward face of an ill-defined escarpment.

The deposits of the Matawan formation consist mainly of dark colored micaceous, sandy clays, which are generally argillaceous in their lower part and sandy toward the top. Upon the eastern shore of Maryland the Matawan formation has a thickness of very nearly 100 feet, but it has already considerably declined in eastern Anne Arundel county, where it is about 50 feet, and thence continues to decrease southeastward, until in the vicinity of Fort Washington it has declined to 15 feet in thickness, as a result of the gradual transgression of the Eocene deposits.

The fossils of the Matawan formation are highly characteristic of its upper Cretaceous age. Numerous marine mollusca, among them several species of characteristic ammonites, are found among its fauna. Some of these forms range into the next succeeding Monmouth formation, but many are restricted to the Matawan.

THE MONMOUTH FORMATION.—The Monmouth formation, so called from its typical development in the region of the Monmouth