

says: "It was described by Emmons from the Miocene of North Carolina, but was not found by Burns in the Duplin beds;" referring to *Terebra dislocata* var. *indenta* Conrad. "*Habitat*.—Duplin beds at the Natural Well, Duplin County, North Carolina." This is the first use of the name Duplin beds, but they were not there specifically defined. However, in the Eighteenth Annual Report of the U. S. Geological Survey, Part II, 1898, in Dall's article, "A Table of the North American Tertiary Horizons, Correlated With One Another and With Those of Europe, With Annotations," pages 327-348, the formation is definitely named. On page 338 Dall states, "*Duplin beds*.—Late Miocene marls of Duplin County, North Carolina," and gives a reference to Conrad, American Journal of Science, 1st ser., vol. 12, pp. 335-343. In the Correlation Table "Duplin beds" occurs in the column headed Atlantic States. Dall, in his Tertiary Fauna of Florida, Wagner Free Institute of Science, vol. 3, part VI, 1903, pp. 1598-1603, gives a further account of the Duplin beds and a detailed list of the fauna obtained from the exposure in the Natural Well southwest of Magnolia. This formation has frequently been considered in the literature, and probably no Tertiary horizon is paleontologically more thoroughly known.

*Definition*.—The formation consists of unconsolidated sands, arenaceous clays, and shell marls representing the latest phase of Miocene deposition in the region south of the Neuse River. North of the Neuse River the Yorktown formation occupies the same stratigraphic position that the Duplin strata do in the southern part of the State, and the two formations may be in part contemporaneous. The differences in the faunas, however, render it inadvisable to include them in a single formation.

In the regions where the Duplin strata occur no other deposits of Miocene age have thus far been recognized, and wherever the basal beds are exposed the formation is seen to rest unconformably upon Cretaceous or Eocene strata.

In the vicinity of Mount Olive the Duplin formation rests upon the Trent, with which it is markedly unconformable. In the vicinity of Wilmington the Duplin beds are found immediately overlying the Castle Hayne deposits. At present the Miocene strata are not known to outcrop in Wilmington, but a few years ago, in excavating for the foundations of the Y. M. C. A. building, a deposit of Miocene marl was found overlying the Eocene limestone of the Castle Hayne formation. At the City Rock Quarries on Smith Creek Miocene marl of the Duplin formation is found in several places occupying depressions in the pitted surface of the Castle Hayne limestone. These pockets