

appeared on this subject since the publication of Sandberger's memoir.

The Tertiary localities in North Germany were briefly described in the early years of the nineteenth century by several palæontologists, more particularly by Count Münster (1835). A number of the typical fossils were described by Goldfuss; Zimmermann described the Hamburg occurrences, and Boll reported on the Mecklenburg locality; but all these authors expressed themselves more or less indefinitely regarding the precise age of the Tertiary fossils and strata.

An important work on the North German Tertiary deposits was contributed in 1847 by Beyrich. This acute observer proved the identity of many of the fossils in Mark Brandenburg and in the Septarian clay of North Germany with fossils of the clays near Antwerp (*Rupelian*). Thus a definite horizon was fixed in the North German succession, and in 1853 Beyrich gave a complete account of the palæontological and lithological sequence of Tertiary deposits as an Introductory to his *Monograph of the Conchylia in the North German Tertiary Rock-Deposits*. It was made evident that the North German "Miocene" facies differed in many respects from the French and Austrian Miocene, and contained a greater number of fossil forms which had continued from older horizons.

The oldest North German Tertiary fauna was shown by Beyrich to be that of the Magdeburg sands, the equivalent of the *Lower Tongrien* in Belgium. This horizon is limited in North Germany to the area between Magdeburg and Egelu. Above it, the Septarian clay follows as the equivalent of the Belgium *Rupelian*, and Beyrich included in the same horizon the Sternberg strata and the Stettin sand. In 1853 Beyrich regarded the Tongrien and Rupelmond system, in agreement with D'Orbigny, as Lower Miocene, but in 1854 he proposed that this horizon, which was sometimes referred to Upper Eocene, sometimes to Lower Miocene, in the Paris basin and Belgian areas should be distinguished as an independent formation under the name of Oligocene. He sub-divided the new formation in three groups, the *Lower Oligocene* comprising the brown-coal deposits of the southern and eastern parts of Germany and the North German amber deposits with the rich flora worked out by Goeppert and Conwentz. To *Middle Oligocene*, Beyrich assigned the Alzey sands, the