

Sir R. Murchison. In 1859 I accompanied him during a tour in Scotland to that district, and mapped the strata with all its faults and dislocations, but never published the results. The region was afterwards investigated by Mr. Judd, and the results published in great detail in the 'Journal of the Geological Society,' for 1873. At the base lie Keuper sandstones, &c., with *Stagenolepis* (a crocodile) and *Telerpeton* (a land lizard), &c., above which are beds of sandstone and conglomerate, which may possibly represent the Rhætic beds. These are succeeded by about 400 feet of sandstone and shale, with plant remains and seams of coal (terrestrial), with pectens in the overlying strata. These are overlaid by limestones and beds of blue micaceous clay, both full of Lias fossils; the whole is well seen on the shore near Dunrobin. Of later date, in the same district, the Lower Oolite consists partly of marine and partly of fresh-water strata, with *Oysters*, *Perna*, *Unio*, *Cyrena*, *Cypris*, &c., and land-plants and coal seams, one of which is $3\frac{1}{2}$ feet thick, and has been worked. The Middle Oolites of the district are considered by Mr. Judd to represent the whole of the English strata from the base of the Oxford Clay to the Coral Rag inclusive. They are full of marine shells of the usual genera and species, and occasionally contain plants and bands of lignite. The whole series is perhaps nearly 1,000 feet thick, and consists to a great extent of sandstones, with occasional limestones, conglomerates, and shales. The Upper Oolite, which is supposed to represent the lower part of the Kimeridge Clay, and all the higher beds, are marine, with occasional remains of land plants.

As a whole, the Liassic and Oolitic series of Brora dip east and north-east along the shore between Dunrobin and Helmsdale, the older parts of the series being