The geology of Nova Scotia is largely indebted to the world-embracing labours of Sir Charles Lyell. Though much had previously been done by others, his personal explorations in 1842, and his paper on the gypsiferous formation, published in the following year, first gave form and shape to some of the more difficult features of the geology of the country, and brought it into relation with that of other parts of the world. In geological investigation, as in many other things, patient plodding may accumulate large stores of fact, but the magic wand of genius is required to bring out the true value and significance of these stores of knowledge. It is scarcely too much to say that the exploration of a few weeks, and subsequent study of the subject by Sir Charles, with the impulse and guidance given to the labours of others, did as much for Nova Scotia as might have been effected by years of laborious work under less competent heads.

Sir Charles naturally continued to take an interest in the geology of Nova Scotia, and to entertain a desire to explore more fully some of those magnificent coast sections which he had but hastily examined; and when, in 1851, he had occasion to revisit the United States, he made an appointment with the writer of these pages to spend a few days in renewed explorations of the cliffs of the South Joggins. The object specially in view was the thorough examination of the beds of the true coal measures, with reference to their contained fossils, and the conditions of accumulation of the coal; and the results were given to the world in a joint paper on "The remains of a reptile and a land shell discovered in the interior of an erect tree in the coal measures of Nova Scotia," and in the writer's paper on the "Coal Measures of the South Joggins";[1] while other important investigations grew out of the following up of these researches, and much matter in

[1] *Journal of the Geological Society of London*, vols. ix. and x.; and "Acadian Geology."