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of Tertiary times, owing to a late uplift of several hundred feet. It is not definitely known whether the main transverse valleys belong to the earlier denudation or were incised since the elevation of this plateau. The hilltops of this second upland range from 800 to 1,000 feet, a few residual points in the extreme south attaining elevations of 1,500 feet above tide.

THE HIGHLANDS OF CENTRAL AND SOUTHERN NEW BRUNSWICK.

In the north-central part of New Brunswick, a rough, elevated region, known as the Central highland, stands as an imperfectly reduced part of the great Cretaceous peneplain of the New England States. The region owes its superior elevation to the strength of the granites and gneisses of which it is composed. There is an apparent concordance in level of plateau-like remnants at elevations of about 1,700 feet, above which summits appear up to an elevation about 2,500 feet above the sea. The rock structure is impressed on the topography mainly in northeast and southwest trending ridges and a border or belt of foot-hills of moderate relief carved from the surrounding slates and sandstones. A similar highland at lower surface elevation and of restricted area, is found in the southern part of the province, near the Bay of Fundy.

THE HIGHLANDS OF NOVA SCOTIA.

The greater part of the peninsula of Nova Scotia is underlain by a complex, consisting of granitic masses intruded into highly-folded slates and quartzites that at one time must have formed great mountain masses. This mountainous district, still reflected in the outline of the peninsula, had become reduced to base level by the close of the Cretaceous period, and at present the remains of this old peneplain form the highlands of Nova Scotia. The surface, which is undulating, slopes to the southeast, and instead of sharp peaks the points above the general level are rounded hills and ridges whose summits are only from 600 to 1,000 feet above the sea. An elevation in Tertiary times is responsible for a general re-dissection; and steep, sharply-incised valleys penetrate the higher parts of the plateau, while in the lower parts to the southeast, wide, shallow valleys are more in evidence.

The more resistant rocks once forming the mountainous parts of the Maritime Provinces now form uplands, with the higher summits projecting but slightly above the rough-surfaced plateaus on which they are found.

In a general way these highlands may be considered as forming parts of a sloping plane, which reaches its maximum elevation in northern New Brunswick, 1,700 feet above the sea, descends to 1,000 feet in southern New Brunswick, and is about 500 feet above the sea in Nova Scotia. If, throughout Cretaceous time when the surface was being reduced, the same direction of slope was maintained, it would be reasonable to suppose that lines of drainage would be established bearing a general southeast direction; and it has been proposed as a possible origin for the deep cut made by the St. John river across the hard rocks of the southern highlands, that one of these Cretaceous drainage lines was deepened during the Tertiary uplifts and drowned by the pre-Glacial subsidence.

THE MARITIME LOWLANDS.

The denudation of the Cretaceous peneplain during Tertiary time was most complete over the areas underlain by rocks of late Palæozoic age. These, being less resistant to eroding agencies, were rapidly removed, and along the eastern shore of New Brunswick and as far south as the highlands of Cumberland and Colchester in Nova Scotia, a Tertiary lowland was formed in which the topography is mature, the hills have easy slopes and the river gradients are slight.