## On the Norian or "Upper Laurentian" Formation. 175

escent labradorite. A very large area of anorthosite was found by Hind<sup>1</sup> on the river Moisie and on its branch, the Clearwater. This area must be very large, although its eastern and western limits are not yet well determined. The Clearwater flows through a valley estimated by Hind to be 2000 ft, deep which is cut in these rocks.<sup>2</sup> They likewise occur in a number of places on the north shore of the St. Lawrence between the Moisie River and the mouth of the Pentecost River.<sup>3</sup>

Next in order comes what is probably most extensive of all the areas, that north of Lake St. John and the upper waters of the Saguenay, which river has its source in this lake, and runs into the St. Lawrence about 125 miles below Quebec. This mass has an irregular oblong shape and its larger diameter runs parallel to the shore of the St. Lawrence, at a distance of about 80 miles. Other areas are found in the neighborhood of Bay St. Paul on the St. Lawrence River,4 at Chateau Richer 5 below Quebec, and in the district between the latter place and Lake St. John." ln the Laurentian region which lies to to the north of the St. Lawrence between Three Rivers and Montreal there are no less than 11 areas, most of which are of very limited extent, but one of these which we may call the Morin area and which lies about 25 miles north of the island of Montreal has an area of 990 square miles. Still another occurrence was discovered and described long ago by Bigsby, 7 on the north shore of Lake Huron, and many other smaller unimportant areas are recorded elsewhere in the Laurentian of Canada, but deserve no further mention. There is also an

<sup>&</sup>lt;sup>1</sup> Hind, Exploration in the interior of the Labrador Peninsula, London, 1863, also Ed. Cayley: "Up the Moisie." Trans. Lit. and Hist. Soc. of Quebec. New Series Vol. V. 1862.

 $<sup>^2</sup>$  Hind, Observations on the supposed Glacial Drift in the Labrador Peninsula, etc., Quart. Jour. of the Geol Soc., Jan. 1864, and Canadian Naturalist, 1864, p. 302.

<sup>&</sup>lt;sup>3</sup> Richardson, Rep. Geol. Survey of Canada, 1866-1869.

<sup>&</sup>lt;sup>4</sup> Geology of Canada 1863, p. 46.

<sup>5 &</sup>quot; " p. 46.

<sup>&</sup>lt;sup>6</sup> Low, Summary Rep. Geol. Survey of Canada 1990, p. 35.

<sup>&</sup>lt;sup>7</sup> Bigsby, A list of minerals and organic remains occurring in Canada. Am. Journ. of Science, 1 Ser., 1824, p. 66.