

Ottawa River, the deposits of this age contain concretions which have gathered around organic remains, such as sea-shells, fishes and bones of the seal. Many of them also contain the remains of land-plants. Dr. Dawson, to whom these relics were submitted for examination, detected the following species of plants: the Norway Cinquefoil (*Potentilla Norvegica*), the Mountain Cinquefoil (*P. tridentata*), the Balm of Gilead (*Populus balsamifera*), the Bear Berry (*Arctostaphylos Uva-ursi*), the White Clover (*Trifolium repens*), the Round-Leaved Sun-Dew (*Drosera rotundifolia*), and two kinds of Pondweed (*Potamogeton natans*), and (*P. perfoliatus*). Such a group of plants would find a congenial home in that part of Acadia now occupied by the sub-Alpine type of vegetation. Indeed, with the exception of the Bear Berry, they are all known denizens of the maritime parts of Acadia. It may be perceived, then, that to reproduce the climatic conditions of the Postpleiocene epoch, it is only necessary to submerge the St. Lawrence valley, and the plains east of the Appalachian range, and permit the Arctic waters to circulate over these submerged lands. That such was the state of the southern half of Continental Acadia during a great part of the age in question there can be no doubt, the Southern Hills alone standing above the icy current, which swept by on either side. With such physical conditions universally prevalent in this region, the Arctic and sub-Arctic must have been the predominant type of vegetation. As the plains began to emerge during the later part of the Postpliocene period, which was one of upheaval, no doubt many Boreal forms were added to those already present in the country.

These additions were largely influenced by the constant play of the Arctic current upon our shores. It acted as a circumpolar distributor of species, and to it the wide range of many Arctic and Boreal plants is evidently due. Entering the Polar Sea between Norway and Spitzbergen, it sweeps round the ice-bound shores of the Old World by Russia and Siberia. An insignificant branch escapes into the Pacific by Behring's Straits; but the main body of the current continues its course through the Georgian Archipelago, and passes into the Atlantic again between Greenland and Labrador. The retarded rotation of the earth throws this current, when entering the Polar Sea, upon the coast of the Old World; the accelerated rotation felt by the same moving mass of water on its southward course causes it to cling to the shores of America