

possibly at some other places on the coast. The beds rest directly and apparently conformably on the Upper Cretaceous, and have afforded only eleven species of plants. *Magnolia* is represented by two species, *Laurus* by two, *Platanus* by two, and one of these said to be identical with a species found by Lesquereux in the Laramie,\* *Viburnum*, *Juglans*, *Quercus*, each by one species; the ubiquitous Sequoias by *S. Langsdorffii*. This is pretty clearly a Lower Laramie flora.

5. The *Atanekerdluk* series, consisting of shaly beds, with limestone intercalated between great sheets of basalt, much like the Eocene of Antrim and the Hebrides. These beds have yielded 187 species, principally in bands and concretions of siderite, and often in a good state of preservation. They are referred to the Lower Miocene, but, as explained in the text, the flora is more nearly akin to that of the Eocene of Europe and the Laramie of America. The animal fossils are chiefly fresh-water shells. *Onoclea sensibilis*, several conifers, as *Taxites Olriki*, *Taxodium distichum*, *Glyptostrobus Europæus*, and *Sequoia Langsdorffii*, and 42 of the dicotyledons are recognised as found also in American localities. Of these, a large proportion of the more common species occur in the Laramie of the Mackenzie River and elsewhere in northwest Canada, and in the western United States. It is quite likely also that several species regarded as distinct may prove to be identical.

It would seem that throughout the whole thickness of these Tertiary beds the flora is similar, so that it is probable it belongs altogether to the Eocene rather than to the Miocene.

No indication has been observed of any period of cold intervening between the Lower Cretaceous and the top of the Tertiary deposits, so that, in all the vast period which these formations represent, the climate of Greenland would seem to have been temperate. There is, however, as is the case farther south, evidence of a gradual diminution of temperature. In the Lower Cretaceous the probable mean annual temperature in latitude 71° north is stated as 21° to 22° centigrade, while in the early Tertiary it is estimated at 12° centigrade. Such temperatures, ranging from 71° to 53° of Fahrenheit, represent a marvellously warm climate for so high a latitude. In point of fact, however, the evidence of warm climates in the arctic regions, in the Palæozoic as well as in the Mesozoic and early Tertiary, should perhaps lead us to conclude that, relatively to the whole of geological time, the present arctic climate is unusually severe, and

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\* *Viburnum marginatum* of Lesquereux.