With regard to the American element of the arctic flora, this is distinct when we compare the corresponding one of Europe and Asia, but it is not very large. We notice, for instance, *Calamagrostis purpurascens*, *Salix Richardsonii*, *Anemone Drummondii*, *A. parviflora*, *Ranunculus Sabinii*, *Lesquerella*, *Hesperis*, *Cardamine digitata*, *Parrya arctica*, *Parnassia Kotzebuei*, *Saxifraga triens pidata*, *Dryas integrifolia*, *Potentilla Vahliana*, *Lupinus*, *Hedysarum*, *Phlox*, *Erigeron compositus*, *E. grandiflorus*, etc. But considered on the whole the vegetation of the north coast is, as stated in the preceding, composed of types from various parts of the northern hemisphere of both Worlds. It will thus be seen from the geographical table, that the arctic coast of this continent has 88 species in common with Altai and Baikal, 61 species in common with the Alps and Pyrenees, 39 in common with Caucasus, 44 in common with the Himalayas, and 106 in common with arctic Scandinavia.

In other words, the migration of the glacial plants cannot be disputed, and, no doubt, the present arctic flora consists to a great extent of remnants of the alpine floras of the tertiary period. And these alpine floras were principally those of the European Alps, Altai, and Baikal, the Rocky mountains, and perhaps also Caucasus and Scandinavia. With regard to Scandinavia, Nathorst calls attention to the fact that while these mountains, at least at present, have but a very few endemic, alpine species, we must bear in mind that owing to the enormous extent of the Scandinavian inland ice the original Scandinavian flora became dispersed towards east, south, and southwest, and intermingled with elements from the Alp. and northern Asia.

Consequently, when the ice receded and the Scandinavian mountains were again covered with vegetation, the probability is that the post-glacial flora was not the same as the original one, but evidently a commingling of types from various mountain ranges farther south. Therefore, we cannot expect that the present Scandinavian mountain flora may guide us as far as to obtain some idea of the pre-glacial flora of these mountains, if such had really been in existence.

However, the question as to the alpine origin of the vegetation depends upon the age of these mountains. As stated by Nathorst, the highest mountains were formed during the tertiary period: the Himalayas, the Cordilleras, the Alps, the Pyrenees, Caucasus, the Rocky mountains, and perhaps even some of the Spitzbergen mountains; but we do not know the age of the mountains of Greenland and Scandinavia. In this way we are obliged to suppose that the alpine and arctic floras, or better their nearest ancestors, in the northern hemisphere are, to a great extent, of a relatively recent date, in any case not older than the eocene period, or even a more recent one. Nevertheless, even though the Alps were formed as late as the pliocene period, the flora of these mountains contains more than 400 alpine species which seemingly owe their origin to these mountains, and many were perhaps not developed until after the glacial epoch.

Finally with regard to the geographical distribution of some of the species which are not circumpolar and which evidently originated in some area south of the arctic regions, we have seen that the present distribution might lead to the acceptance of the theory, proposed by Schouw, at least in some cases. And there are cases where we cannot explain how the same species could have passed from one point to the other. And even if the geographical and climatologic changes which have occurred within recent geological times must have interrupted or rendered discontinuous the formerly continuous range of many species, there are some cases which may well be considered exceptional. I think especially of the Pyrolaceae.

Owing to the present distribution of these in both Worlds, with some of them being almost equally well represented on this continent and in Europe, but being so very scantily represented in Asia, none being alpine, and only one being, as I presume, of arctic origin, it seems very difficult to locate the actual centre of their distribution and development.