

Introduction.

On the return of the expedition, the late Mr. James M. Macoun, C.M.G., F.L.S., Botanist in the Geological Survey and Chief of its Biological Division, undertook to prepare the report on the botanical collections. Mr. Macoun determined nearly all of the specimens collected, but in order to make the report as free from errors as possible, he submitted a number of specimens of critical groups and species to specialists.

Thus, my late friend and myself determined in conjunction the Cryptogams, the Monocotyledons, and many of the Dicotyledons except the Salices and some of the Gamopetalæ; but since some of the Gramineæ contained difficult types, these were sent to Professor A. S. Hitchcock who kindly examined them and furnished the names; moreover the Salices were determined by Dr. C. R. Ball and Dr. Camillo Schneider, who have made a special study of this genus; Dr. J. M. Greenman has kindly identified the species of *Senecio*.

At the time of the death of Mr. James M. Macoun in January, 1920, the report was unfinished, and on the recommendation of the late Professor John Macoun, and the Arctic Biological Committee, the undersigned was asked to complete the determination of the vascular plants collected and to prepare a report for publication.

All the mounted and unmounted material of the vascular plants was then sent to me; thus I had a better opportunity of determining the collection than from the single specimens previously sent to me for identification. At the suggestion of Dr. R. M. Anderson three other collections were included, viz., one by the late Rev. H. Girling from Clifton point, on the south side of Anundsen gulf, about 125 miles west of Bernard harbour, in 1916; a second collection made by the Rev. Isaac O. Stringer, now Bishop of the Yukon, from the Mackenzie delta and Herschel island; and a third collection, made by Captain Joseph F. Bernard of the schooner *Teddy Bear*, who recently returned after spending four years on a trading voyage to the Coronation gulf region. These specimens collected by Captain Bernard are mostly from Taylor island, Victoria strait, off the southeastern end of Victoria island, 69°15' north and 102° west. Taylor island is right across the strait from King William island; some other specimens are from De Haven point, Victoria island, a little south of Taylor island, about 69° north 102° west, and a few others from the south side of Victoria island. These collections I have thus included in the enumeration, and they constitute a valuable addition to the ones brought home by the expedition.

As may be seen from the list, the vegetation on the north coast has many species in common with the islands of the American Arctic archipelago, with Greenland, and with Alaska; and naturally several of these species have also been reported from much farther south, notably from the Rocky mountains and the Hudson bay region.

The accompanying plates illustrate some of these species, and I have selected such as have not been figured before, or species of which figures are published in works not readily accessible; in some few cases I have figured the plants in order to show their habit in these high northern regions.

Finally I wish to state that in preparing this list I have conscientiously followed the principles with regard to the nomenclature and limitation of species which I know would be in conformity with the views of my late friend James Macoun, as they are with my own.