

On Cretaceous Plants from Port  
McNeill, Vancouver Island,  
collected by Dr G. M. Dawson F. G. S.,  
with preliminary note on the  
Specimens by Sir W<sup>m</sup> Dawson F. R. S.

I Note on the Geology, by G. M. Dawson.

The fossil plants <sup>referred to in the following note,</sup> here described were obtained at Port McNeill, on the north-west coast of Vancouver Island, in 1885. The precise locality is situated on the north shore of Port McNeill, bearing N. 65° E. (mag.) from Red Reef. The beds here lie at an angle of about ten degrees, or not far from horizontal, and the

Plants are found in shales and shaly sandstones about five feet above a small seam of coal from one to two inches thick.

The cretaceous rocks of the northern part of Vancouver Island appear to belong to a basin or deposition area distinct from those of Comox and Nanaimo districts to the south, and more closely connected with that of the Queen Charlotte Islands to the northward. The best general section of the rocks in question so far observed is that in Quatzino Sound, where we appear to find represented

The three higher members of the Cretaceous section of the Queen Charlotte Islands as it exists in the vicinity of Skidegate Inlet. The Cretaceous rocks which extend along the north-east coast of Vancouver Island, from Port McNeill to Beaver Harbour, may in part represent the lowest, or coal-bearing portion of the Quatzino section. A few fossil plants obtained at Beaver Harbour are Middle Cretaceous, or possibly referable to a horizon near that of the lowest beds at Quatzino. The Port McNeill beds are probably much later than these, but their

stratigraphical position has not  
been fully determined, and as  
no fossils but plants have been found  
in them, these constitute the only  
evidence as to their precise reference.  
(See Part B. Annual Report, Geological  
Survey of Canada, 1886.)

## II Notice of the Plants

The plants from McNeil Harbour are almost entirely dicotyledonous leaves with a few fruits. There are no Cycads or Ferns and Conifers are rare. The latter are limited to fragments of a Sequoia of the type of S. Langsdorffii, Heer, and two species of Talisburia or Ginkgos. One of the Ginkgos is a beautiful little species with leaves resembling those of the modern species when about one third grown in spring. It resembles the Jurassic species, S. integrifolia and

The Cretaceous species S. primordialis from Atanié in Greenland, but is probably new.

The Eocene leaves are very numerous and belong to a number of genera, among which are Ficus, Alnus, Betula, Quercus, Diospyros, Cinnamomum, Ceanothus, Quercus, Populus, Salix, Proteoides, Juglans, Rhamnus, Aralia and probably several others, evidencing a very rich and various forest flora of warm temperate aspect. The material is so extensive that it has not yet been fully examined, but it must

include at least twenty species of  
Eocene trees and shrubs. Some  
of these are apparently identical  
with species previously recognised  
at Nanaimo and elsewhere on  
Vancouver Island; but the majority  
are different.

The facies of the flora as a  
whole is Upper Cretaceous, and would  
appear to be newer than the Dakota  
and Peace River floras, and perhaps  
equivalent to the Patoot series of  
Greenland, some of its peculiarities  
would seem to be of rather higher  
horizon or younger date than that

of the Nanaimo coal-field. I should think these beds rather later <sup>in the Cretaceous</sup> ~~at least~~ than those of Beaver Harbour referred to in Dr. Dawson's note.

They will, when fully worked out, add a number of interesting species to the known Cretaceous flora of Vancouver Island, which will also be increased by a collection obtained at the same time by Dr. Dawson from the Wellington Mine, Nanaimo.



Paul M. Shaw