

is *Cycadeocarpus* (*Diodnites*) *Columbianus*,* a species allied to the modern *Diodn edule* of Mexico, and also to species known in Europe and other parts of America as Wealden or Lower Cretaceous. With these are associated coniferous woods which indicate the existence of several species of trees allied to *Sequoia* and to *Taxus*. The somewhat limited flora of these Middle Cretaceous coal-measures of the Queen Charlotte Islands was described by me in 1873,† and as no subsequent additions have been made to it, does not need to be further noticed here.

A small collection made by Dr. G. M. Dawson at Beaver Harbor, in the north end of Vancouver Island, and not improbably of Middle Cretaceous age, though later than the anthracite of Queen Charlotte Island, contains leaves of *Salisburia* or ginkgo, and also of the genus *Neuropteris*.

A somewhat larger and more varied collection, also made by Dr. G. M. Dawson, comes from Baynes' Sound in Vancouver Island, and occurs in beds overlaid by characteristic Cretaceous marine shells. It represents an Upper Cretaceous horizon, perhaps a little lower than that of the Nanaimo coal-field. It contains several species of ferns of the genera *Teniopteris* and *Nitsonia*, and other characteristic Mesozoic genera. Associated with these in the same specimens are leaves of the modern genera, *Salix*, *Populus*, *Betula*, *Ulmus*, *Ceanothus*, *Magnolia* and *Sassafras*. There are also leaves of the curious genus *Protophyllum*, found by Lesquereux in the Cretaceous of Nebraska, and conifers of the genera *Salisburia* and *Glyptostrobus*. Baynes' Sound is in the Comox coal-basin of Vancouver Island, which, according to Mr. Richardson's sections, is approximately on the same horizon with that of Nanaimo, on the same coast. ‡

The flora of Nanaimo and of Protection Island in its vicinity, has been collected by Mr. Richardson, and is proved by the animal fossils associated with it to be of Upper Cretaceous age. It holds species of ferns different from those of Baynes' Sound, and affords species of *Taxodium*, *Sequoia* and *Salisburia*, and leaves of a fan-palm (*Sabal*), and of exogenous trees of the genera *Diospyros*, *Populus*, *Juglans*, *Quercus*, and other modern types. There is also fossil exogenous wood referable to some of the same genera.

2.—Cretaceous of the North-West Territories.

In the sandstones of the Pine River and Peace River districts, not far from the base of the Rocky Mountains, and about the latitude of 54°, there have been found, in addition to ferns and species of *Sequoia* and *Glyptostrobus*, a species of *Cycadites*, and leaves of *Magnolia*, *Ficus*, *Protophyllum*, *Menispermites*, *Salix*, *Populus*, *Laurophyllum*, *Diospyros* and *Fagus*. The specimens indicate a very luxuriant and varied flora, such as might find suitable habitat on the northern shore of the great warm-water Mediterranean, which, in the Middle Cretaceous, occupied the space between the Rocky Mountains and the high lands of Eastern America. Cretaceous mollusks are associated with the plants, and one of them is identical with a species found in Queen Charlotte Islands. Coal is also associated with

* Discovered by Mr. James Richardson, and described and figured by the writer. Report Geol. Survey, 1872-3.

† Report of Geological Survey of Canada.

‡ Geological Survey of Canada, 1870-77.