with them, but so far in beds too thin to be of value. Fossil plants from Burrard Inlet and Bellingham Bay have been described by Newberry and Lesquereux, and these are supposed to indicate a Miocene age for the deposits. *

Much farther north, in the Queen Charlotte Islands, the whole north-eastern portion of Graham Island has now been shown to be underlaid by Tertiary rocks, which produce a flat or gently undulating country, markedly different from that found on most parts of the coast. The prominent rocks are of volcanic origin, including basalts, dolerites, trachytic rocks, and in one locality obsidian. Numerous examples of fragmental volcanic rocks are also found. Below these, but seen in a few places only, are ordinary sedimentary deposits, consisting of sandstones or shales, and hard clays with lignites. At a single locality on the north end of Graham Island, beds with numerous marine fossils occur. These, in so far as they admit of specific determination, represent shells found in the later Tertiary deposits of California, and some of which are still living on the north-west coast; and the assemblage is not such as to indicate any marked difference of climate from that now obtaining. †

The Tertiary rocks of the coast are not anywhere much disturbed or altered. The relative level of sea and land must have been nearly as at present when they were formed, and it is probable that they originally spread much more widely, the preservation of such an area as that of Graham Island being due to the protective capping of volcanic rocks. The beds belong evidently to the more recent Tertiary, and though the palæontological evidence is scanty, it appears probable from this, and by comparison with other parts of the west coast, that they should be called Miocene.

To the east of the Coast or Cascade Range, Tertiary rocks are very extensively developed. They have not, however, yielded any marine fossils, and appear to have been formed in an extensive lake, or series of lakes, which may at one time have submerged nearly the entire area of the region described as the interior plateau. The Tertiary lake or lakes may not improbably have been produced by the interruption of the drainage of the region by a renewed elevation of the coast mountains proceeding in advance of the power of the rivers of the period to lower their beds; the movement culminating in a profound disturbance leading to a very extensive volcanic action. The lower beds are sand-

* Report of Progress, Geol. Survey of Canada, 1876-77, p. 190.

† In the geology of the U. S. exploring expedition, Prof. Dana describes some Tertiary plants from Birch Bay. These were afterwards reported on by Newberry, Boston Journal of Natural History, vol. vii., No. 4. See also American Journal of Science and Arts, 2nd series, vol. xxvii., p. 359, and vol. xxviii., p. 85. Report on the Yellowstone and Niusain expedition, 1869, p. 166 Annals Lyceum of Natural History of N. Y., vol. ix., April 1868.