

marine character, are largely developed, and they also occur with abundant molluscan remains in the northern part of Vancouver Island. In the southern part of the interior of British Columbia, not far west of the Selkirk and Gold Ranges, rocks also occur unconformably overlying the Carboniferous series, from which a few fossils, with little doubt, belonging to the same Alpine Trias fauna have been obtained; and it is further probable that—as in California—the greater part of the auriferous shales are attributable to this or the succeeding Jurassic series.

In the Queen Charlotte Islands, Vancouver Island, and on the mainland of the province, however, the Triassic series is largely composed of rocks of volcanic origin, some of which have been lavas while others are agglomerate or ash beds, made up of fragments of igneous material, more or less perfectly stratified. These are mingled with schistose and slaty rocks, and in some places with massive bluish lime-stone, deposited during periods of tranquillity; and it will require the most careful and systematic examination to completely separate this from the underlying strata. I have little doubt that the so-called 'porphyroids' of King's Koipato group indicate an extension of similar volcanic activity over the 40th parallel region to the south.

A word may be added with reference to the climatic conditions implied by the Red Beds of the interior. The basin in which they were formed has not only been pretty completely cut off from the ocean, but the rate of evaporation of its waters must have been normally in excess of that at which they were re-supplied by precipitation or drainage from neighboring lands. It is probable that at that time, as at the present day, westerly winds prevailed in this part of the northern hemisphere, and, if the North Pacific Ocean then existed, these would carry, as they do now, an abundance of moisture and afford a copious rainfall on the west coast. As the land barrier of the inland sea to the west cannot have been of very great width, it must have been of such height as to cause the almost complete desiccation of these oceanic winds by precipitation before they reached the area occupied by the Triassic Mediterranean: and this old mountain range, must, in British Columbia, have occupied nearly the position of the Selkirk and Gold Ranges of to-day, at a time when the Rocky Mountain region proper was still a flat expanse of Paleozoic rocks.

To the north, at the present time, between the 54th and 56th parallels, the Gold Range almost completely disappears, and it is through this gap that the Triassic ocean must have flowed eastward to the upper Peace River country and, perhaps, much farther east—though the Cretaceous, and Laramie beds, occupying the flat country, render it impossible to trace its deposits in that direction.