

Miocene. They are also undoubtedly continuous with the Fort Union group of the United States geologists on the other side of the international boundary, and they contain similar fossil plants. They are divisible into two groups—a lower, mostly argillaceous, and to which the name of “Bad Lands beds” may be given, from the “bad lands” of Wood Mountain, where they are well exposed, and an upper, partly arenaceous member, which may be named the Souris River or Porcupine Creek division. In the lower division are found reptilian remains of Upper Cretaceous type, with some fish remains more nearly akin to those of the Eocene.* Neither division has as yet afforded mammalian remains.

The western area is of still larger dimensions, and extends along the eastern base of the Rocky Mountains from the United States boundary to about the 55th parallel of latitude, and stretches eastward to the 111th meridian. In this area, and more especially in its southern part, the officers of the Geological Survey of Canada have recognised three divisions, as follows: (1) The Lower Laramie or St. Mary River series, corresponding in its character and fossils to the Lower or Bad Lands division of the other area. (2) A middle division, the Willow Creek beds, consisting of clays, mostly reddish, and not recognised in the other area. (3) The Upper Laramie or Porcupine Hills division, corresponding in fossils, and to some extent in mineral character, to the Souris River beds of the eastern area.

The fossil plants collected by Dr. G. M. Dawson in the eastern area were noticed by the author in an appendix to Dr. Dawson's report on the 49th parallel, in 1875, and a collection subsequently made by Dr. Selwyn was described in the “Report of the Geological Survey of Canada” for 1879-'80. Those of the western area, and

* Cope, in Dr. G. M. Dawson's “Report on the 49th Parallel.”