## ROYAL SOCIETY OF CANADA

the Rocky Mountains, with eyeads, pines, and ferns, followed upward by the "Intermediate series" of the Rocky Mts., the "Queen Charlotte series," and Suskwa R., with their cycads, pines, and a few dicotyledons. 2, The Middle Cretaceous, comprising the "Mill Creek series" or Mill Creek formation of the Rocky Mts., and the "Dunvegan series" (Dunvegan formation), of the Peace river, with dicotyledons and conifera, which find their equivalents in the Dakota group of the United States. 3, Upper Cretaceous, including the coal-measures of Nanaimo (Nanaimo formation), with many dieotyledons, palms, etc., the "Belly R. series" with its lignites, conifers and dicotyledons. The Lower Laramie, or "St. Mary R. series," including the Lemna and Pistia beds of the bad lands of the Red Deer R., including lignites, also the Middle Laramie, or "Willow Creek series," which are overlaid by the " Porcupine Hill series," or Upper Laramie. From the Cretaeeous rocks of Canada, Sir Wm. Dawson has recognized 179 species of fossil plants, and Mr. Whiteaves 394 species of fossil animal remains, if we include the whole of the Laramie as a part of the Cretaceous system. Along the Rink rapids of the Lewes R. marine Cretaceous fossils have been recorded, from the Yukon district. The Yukon district coal is probably of Cretaceous age. The coal beds at Anthraeite, and the Crow's Nest coal strata are both of Kootenay age.

## THE TERTIARY CYSTEM.

Neither in the Acadian region nor in the Laurentian Highlands, nor again throughout the Lawrencian Lowlands, are there found any recognizable traces of rocks properly referable to the Eocene, Miocene, or Pliocene, unless some of the pre-glacial gravels along the north shore of Lake Ontario, underlying the glacial deposits of the Toronto region may prove to be Tertiary in age.

The Interior Continental Plain.—The "Paskapoo series," or Paskapoo formation, or upper division of the Laramic, consisting of gray and brownish-weathering lamellar, or massive sandstones, and olive sandy shales of fresh-water origin, has, no doubt, been correctly referred to the Eocene Tertiary, and separated from the Cretaceous by Mr. Tyrrell. The fauna which these rocks hold, as well as their flora, affording satisfactory evidence in support of this view. This series overlies the Edmonton formation, and together with it, correspond to the Porcupine Hill and Willow Creck series, and part of the St. Mary River series, of Dr. Dawson in the South. The thickness of this formation is between 5000 and 6000 feet. It has been traced along with the Edmonton series, as the Laramie or Lignite Tertiary formation, by Richardson, Selwyn, Dawson,

218