

rates composed of coarse rolled shingle which has had its origin in the Rocky Mountains. These are associated with soft sandstones and sandy clays, and have yielded a few vertebrate remains which seem sufficient to fix the age of the formation.

It has already been stated that the Cretaceous rocks of the extreme west differ from those of the typical section first quoted. In the region of the Bow or Belly Rivers, the Pierre is underlain by an extensive fresh-and-brackish-water series, consisting of sandy argillites and sandstones; the upper portion is characteristically pale in tint, the lower generally darker and yellowish or brownish. This has been called the Belly River series, and appears to correspond precisely to that occupying a similar stratigraphical position on the Peace River, and there designated the Dunvegan series. These indicate the existence of a prolonged interval in the western Cretaceous area, during which the sea was more or less excluded from the region, and its place occupied for long periods by lagoons or shallow water lakes. Below these, both in the region of the Bow and Belly and on the Peace Rivers, is a second series of dark shales which may probably represent the Benton group of the Missouri sections.

The subjoined table shows more clearly the relations of the Cretaceous and Laramie beds, so far as they are at present known:—

MISSOURI SECTION. Meek and Hayden.	DISTRICT OF BOW AND BELLY RIVERS.	PEACE RIVER DISTRICT.
Laramie and Fort Union.	Laramie. Porcupine Hill beds. Willow Creek beds. St. Mary River beds.	Wapiti River group.
Fox Hill beds.	Fox Hill (inconstant).	
Pierre group.	Pierre group.	Smoky River group.
Niobrara group.	Belly River group.	Dunvegan group.
Benton group.	Benton group?	Fort St. John group.
Dakota group.		

The Cretaceous and Laramie beds of the whole eastern portion of the interior Continental region are almost absolutely horizontal, or affected