The evolution of Cretaceous nomenclature of southwest Manitoba is documented in this text. The 33 m thick Boissevain consists mainly of unconsolidated cross-bedded buff sandstone. The Boissevain Formation is the uppermost Cretaceous formation in Manitoba. The formation is near Pierre, South Dakota.

The Coulter is a light grey to buff, bentonitic clayey silt. The Pierre Shale type section is near the town of Pierre, South Dakota. The Pierre Shale is dark grey, nonplastic shale, with purplish manganese-stained fracture surfaces. The Pierre Shale is one of the most important stratigraphic units in the western United States and is a marker bed for many regional studies.

Odanah is hard black to dark greenish grey siliceous shale, which weathers into thin layers of grey to blackish silt. The formation is named after the Odanah, a Native American tribe.

13) members. The Gammon is hard black shale with claystone concretions; and Pembina (Figure 10), Millwood (Figure 11), Odanah (Figure 12), and Coulter (Figure 13). The Cretaceous System that forms much of the Manitoba Escarpment was deposited in an epeiric sea that extended from the Arctic to the Gulf of Mexico.

The Favel Formation comprises olive-black, chalk-speckled calcareous shale, which weathers into thin layers of grey to blackish silt. The formation is named after the Favel, a Native American tribe. The Favel Formation conformably to nonconformably overlies the Ashville Formation. Its type section is near the town of Favel, Saskatchewan.

The Ashville Member is subdivided, in ascending order, into the Skull Creek, Newcastle Member, and Morden Member. The Skull Creek Member is a dark grey, nonplastic shale, with purplish manganese-stained fracture surfaces. The Skull Creek Member overlies the Boyne Member (Figure 8), a 75 m (max.) thick dark grey, nonplastic shale with purplish manganese-stained fracture surfaces. The Boyne Member is overlain by the upper Assiniboine (Figure 6) members, but the upper member has been noted to be absent at some localities.

The Carlile Formation is an important unit in the study of Mesozoic stratigraphy. The formation is named after the Carlile, a Native American tribe. The formation overlies the Headwater Formation and is overlain by the Wood Mountain Formation. The formation is composed of olive-black, chalk-speckled calcareous shale, which weathers into thin layers of grey to blackish silt. The formation is divided into three members: the Upper Member, Middle Member, and Lower Member. The Upper Member is a dark grey, nonplastic shale, with purplish manganese-stained fracture surfaces. The Middle Member is a dark grey, nonplastic shale, with purplish manganese-stained fracture surfaces. The Lower Member is a dark grey, nonplastic shale, with purplish manganese-stained fracture surfaces.