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Caption for cover

This is one of the most spectacular and well-known views in the Canadian Rockies: Cirrus Mountain and the Weeping Wall seen from the Big Bend viewpoint in northern Banff National Park, Alberta.

Several important boundaries, both geological and ecological, are evident in this image. The distinct break in slope across the centre, edged by trees, marks the boundary between the Upper Devonian and Lower Mississippian. The steep lower slopes of Cirrus Mountain are formed in grey limestone of the Upper Devonian Palliser Formation. These cliffs are known as the Weeping Wall, so called for the number of waterfalls that cascade down the face. The more gently sloping mid-slopes of Cirrus Mountain are formed by shales of the Banff Formation. The upper slopes are formed from the more resistant dark grey cliff-forming rocks of the Rundle Group. Cirrus Mountain rises to 3215 masl, giving almost 1600 m of relief in this view. To the left of the main peak, in the notch, lies the Mount Coleman normal fault, with the lower peak at the far left capped by rocks of the Palliser Formation. This three-part geological sequence (Palliser–Banff–Rundle) occurs widely in the Front Ranges and in places, as here, the Main Ranges of the Canadian Rockies.

The treeline, an important modern ecological boundary, is also well marked along the slopes of Cirrus Mountain. In this area, the upper subalpine forest is dominated by Engelmann spruce (Picea engelmannii) with some Rocky Mountain Sub-alpine Fir (Abies bifolia). Whitebark pine (Pinus albicaulis) is often a component of the treeline zone. In this view southward, down the North Saskatchewan River valley, the valley floor lies at about 1600 masl. The Icefields Parkway (Hwy 93), a major tourist route, parallels the river.