

4.5 Rausch Moist Mild Engelmann Spruce–Subalpine Fir

Location

The ESSFmm1 is the subalpine variant at middle to upper elevations in the Rocky Mountain Trench and adjacent side valleys from north of McBride (Morkill River, Dore River) to near Mica and Kinbasket reservoir (Hugh Allen Creek). The Robson variant (ESSFmm2), not described in this field guide, occurs only in Mount Robson Park.

Elevation range

990–1800 m

Climate

The moist subalpine climate of the ESSFmm1 is drier than the ESSF variants it borders to the north and south. This is due to the rainshadow effect of the Premier Range to the west of this area. The ESSFmm1 has higher precipitation, cooler temperatures, and, therefore, a shorter growing season than the ICH variants found at lower elevations.

There are only a few short-term climate stations to characterize the climate of this variant. These stations indicate that the mean seasonal (May–Sept.) precipitation is about 350 mm. Although all ESSF biogeoclimatic units are subject to severe and limiting temperature regimes, this variant is judged to be relatively “mild.”

Forests

Forests of the ESSFmm1 are dominated by subalpine fir and Engelmann spruce. These two species are a major component of most seral stands and are the climax species throughout the variant. At the upper elevations of this zone, where the climate becomes most severe, the forests become more open, and eventually form clumped, stunted stands (krummholz). This area is known as parkland and is designated as a parkland subzone (ESSFmm1p). Lodgepole pine is common on drier sites as a seral component of many ecosystems. At lower elevations of the variant, western hemlock can be quite frequent and the occasional Douglas-fir, western redcedar, or western white pine can be found.