

Idaho's Climate

THE COCORAHS 'STATE CLIMATES' SERIES

Idaho Contrasts from Mountains to Plains

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The topography of Idaho, its mountains, canyons, and plains, produces a paradise of extremes. The mountains capture the winter maritime influence of the Pacific Ocean, accumulating an abundance of snow, exciting snow sport enthusiasts and irrigators alike. Moist winters give way to dry, continental summers with hot daytime temperatures, but cool nights thanks to the relatively dry atmosphere. The canyons and valleys gain their notoriety for extremes through high daytime summer temperatures, but benefit from the spring and summer melt of winter snow accumulations, which provides an abundant irrigation water supply and exciting whitewater river rafting.

The mountains of the central and northern parts of the state are the greatest accumulators of snow. The maximum recorded winter snowfall of 441.8 inches occurred at Roland West Portal during the winter of 1949-50, and the highest annual average of 283.5 inches occurs at Mullan Pass. In terms of liquid water depth, the highest annual average precipitation of 48.87 inches belongs to Burke 2 ENE, a National Weather Service climate station which was discontinued in 1966. These seasonal-to-annual records are all held within Shoshone County in the Bitterroot Mountains of the Idaho Panhandle. The record maximum 24-hour precipitation of 7.17 inches was set at Rattlesnake Creek on November 23, 1909. On the other end of the spectrum, the record minimum annual precipitation of 2.09 inches was set in 1947 at Grand View, which also holds the record minimum annual average precipitation of 7.14 inches. Ironically, Rattlesnake Creek flows into the Snake River near Grand View, and both are located on the Snake River Plain of Southern Idaho.

Idaho is among the states with the widest range between record maximum and minimum temperatures, having experienced 178°F between the two. The record high of 118°F was recorded on July 28, 1934 at Orofino in a canyon along the Clearwater River, not far from the confluence of the Clearwater and Snake Rivers, which is the lowest point of elevation in the state. The record low of -60°F was recorded at Island Park Dam on January 18, 1943, located in southeastern Idaho near Yellowstone National Park. Despite average daytime maximum July temperatures in the mid-80's to low 90's through most of the non-mountainous parts of the state, the low humidity results in average nighttime lows in the 40's to 50's, which is welcome relief for a good night's sleep.

Regardless of contrasts between mountains, canyons and plains, they are interconnected by a common theme: the importance of water. Upon deposition in the mountains, winter snowfall has produced some of the nation's best skiing, resulting in great ski resorts ranging from the famed to exhilarating "best-kept secrets". Pulled by gravity and pushed by the sun, snowmelt is conveyed by great canyons from mountains to plains. The power of this water enabled the Snake River to carve Hells Canyon, the deepest river-cut canyon in the United States, whose largest canyon rim-to-floor difference is 7993 feet (2436 meters). In addition, the Middle Fork of the Salmon River is regularly ranked among the Top 10 Whitewater Rafting Rivers of the world. Salmon runs and hydropower also find their place among the canyons of Idaho. Once the water flows out onto the Snake River Plains of southern Idaho, the abundance of water and sun yield some of the best irrigated agricultural land in the United States.

For more information on Idaho's Climate please visit the Idaho Climate Office website at: <http://snow.cals.uidaho.edu/index.html>