

A Study of Snow Climates in The Japan Alps

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The Japan Alps on Japan's main island of Honshu consist of 3 mountainous areas broken into the North, Central and South Alps that are located between 35° to 37°N, 136° to 140°E. It is known experientially that the amount of snow differs dramatically in these areas due to the varying influences of the winter monsoons across these mountain ranges. In this study we analyzed the meteorological data and the snow-pack data of two of these areas; the northern North Alps known for its heavy snow fall, the Central Alps known for its low snow fall. A distance of approximately 100 km separates these two areas. Based on the processes used by Mock and Birkeland (2000), the results of snow climate classification are as follows; northern North Alps (10 year Ave.: Coastal, 10/10 winters: Coastal), Central Alps (10 year Ave.: Continental, 6/10 winters: Continental, 4/10 winter: Coastal). The snow-pack data of the northern North Alps over 5 winters showed the characteristics of Coastal climate. On the other hand, Snow-pack characteristic of the Central Alps is similar to Continental characteristic but differs in the high predominance of wet-grain. These results show that the snow climate classification to have attention for the rainfall more than the classifications used in the North America is needed in the Japan Alps.