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Letter to the Editor

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Investigation of Avalanche Events Occurring in Palandöken Ski Resort

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Abstract

The aim of the study is to examine the avalanche events that occurred in Erzurum Palandöken Ski Resort. Palandöken's topography makes it vulnerable to avalanches. Avalanches are the rapid and sudden flow of snow masses accumulated on slopes and are considered one of the natural disasters. Several avalanches have occurred on Palandöken Mountain, leading to tragic results. In 1974, six people were buried under an avalanche and rescue teams were injured in a secondary avalanche. In subsequent years, avalanches died four people in 1975, one person in 1976, and eight people on Dragon Peak in 1977. In 2006, one tourist died in an avalanche on Palandöken Mountain. The last avalanche disaster on Palandöken Mountain, which occurred on December 21, 2024, resulted in the death of an athlete from the Kocaeli Judo National Team of the Turkish Olympic Preparation Center. Palandöken, one of Türkiye's leading winter tourism destinations, hosts international events but faces significant avalanche risks due to its topography. In order to reduce these risks, it is essential to establish avalanche early warning and monitoring systems, provide avalanche safety training for tourists and personnel, and implement infrastructure measures to reduce avalanche hazards.

Dear Editor,

There are approximately 2000 ski resorts in 68 countries around the world.[1] Among the 41 ski resorts in Türkiye, three are located in Erzurum. Among these are the ski resorts of Palandöken, Kandilli, and Konaklı. The New York Times has placed Palandöken 18th out of 41 ski resorts worldwide. It is located in the Erzurum Valley area, close to Ejder Peak, and is renowned for being the highest-altitude and longest-season ski resort in Türkiye. The resort has a 1020-hectare ski area, elevations between 2200 and 3176 meters, and a 1070-meter vertical drop. For both domestic and foreign travelers, Palandöken Mountain is a popular winter destination.[2] The topography of Palandöken makes it vulnerable to avalanches. An avalanche is the rapid and sudden flow of snow masses accumulated on slopes and is considered one of the natural disasters.[3] Several avalanches have occurred on Palandöken Mountain with tragic consequences. In 1974, six people were buried in an avalanche and rescue teams were injured by a secondary avalanche. In later years, avalanches caused the death of four people in 1975, one person in 1976, and eight people at Dragon Peak in 1977.[4] In 2006, one tourist died in an avalanche on Palandöken Mountain.[4] The last avalanche disaster that occurred on Palandöken Mountain on December 21, 2024 resulted in the death of an athlete from the Turkish Olympic Preparation Center Kocaeli Judo National Team.[5] As one of Türkiye's premier winter tourism destinations, Palandöken hosts international events but faces significant avalanche risks due to its topography. To mitigate these risks, it is essential to establish avalanche early warning and monitoring systems, conduct avalanche safety training for tourists and staff, and implement infrastructure measures to reduce avalanche hazards. Additionally, emergency response plans should be developed, and environmental projects to enhance vegetation cover should be implemented to reduce erosion.

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