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Talus slope analysis in a catchment of the central swiss alps using high

resolution HRSC image and digital elevation data

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Spatial Distribution, and geomorphologic and geomorphometric properties of talus slopes as an important types of sediment storage in high mountain geosystems are discussed on a regional scale.

Talus slopes constitute an important component of sediment cascades in alpine periglacial systems. Being a link between rock walls and rock glaciers talus slopes have been mapped in several side valleys of the Turtmanntal (Valais, southern Switzerland).The spatial relation of talus slopes and rock glaciers has been analyzed. Also, and the role of talus slopes for the formation of rock glaciers has been discussed.

Vegetational coverage, surface activity and rock size distribution has been mapped using multispectral remote sensing images.

An estimation of talus slope volumes is performed by combining digital elevation data and a modelled surface of the underlying bedrock. The data afore mentioned are assembled in an inventory of talus slopes for the Turtmanntal.

The airborne High Resolution Stereo Camera (HRSC-A), developed by the German Aerospace Centre (DLR), delivered a unique digital dataset of map

projected multispectral aerial imagery of the Turtmanntal with a resolution of 50 centimetres, linked to digital elevation data with one metre cell size