ICG2022-142, updated on 08 Jun 2023
https://doi.org/10.5194/icg2022-142
10th International Conference on Geomorphology

Surface macro-fabric analysis of screes in the Ubiñas Massif (Cantabrian Mountains NW Spain)

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The screes cover a large part of the slopes, as long as there are rocky outcrops nearby. They are the most common landforms in the Cantabrian Mountains, and are associated to high warm mountain with some periglaciar dynamics. Their shape varies between slopes, when the clasts are located at the bottom rocky cliffs; and cones, when they are placed at the narrow canals end with small basins. The continuous material supplying from the cliff origins these landforms, being associated both the fracturing of rocky outcrops and the gelifraction and thermoclasty processes.

A macro-fabric analysis of 8 screes has been carried out, located at the Ubiñas Massif (Cantabrian Mountains, NW Spain) The dip and orientation of 50 clasts have been measured in 24 macro-fabric analysis. The data were plotted in a equal-area stereogram and the eigenvalue method was used for statistical analysis.. The main vector (V1) shows a clear control of the slope direction and inclination on which the scree settles. In all cases, the main vector presents values sub-parallel to the scree orientation, with angles below than 27º. In adittion, the dip of this main vector gives values similar to the scree slope, although slightly lower than it (95.8%). The main eigenvalues (S1) also reflect the influence of the general scree direction/inclination, since the value exceeds 0.60 in the 80% of the cases, indicating a predominant cluster macro-fabrics shape. The macro-fabrics analyzed differ from other morphologies in the Cantabrian Mountains (glacial deposits, rock glaciers or debris avalanches).