



Application of SWAT and CAST model on Damma Glacier CZO

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Damma Glacier is one of the Critical Zone Observatories, located at the central Swiss Alps, Switzerland and is characterized by a 150-year soil chronosequence. In this study, we used the Soil and Water Assessment Tool (SWAT) to simulate the hydrology of the watershed of Damma glacier, Switzerland and of the extended area that feeds Goescheneralpsee and includes Damma watershed. SWAT was calibrated for the watershed of Damma glacier with the stream flow data collected between 2009 and 2011. Subsequently and in order to study the up-scaling effect, SWAT was run for the greater area using the same parameters. Carbon accumulation and aggregate formation along Damma soil chronosequence was modelled using ROTH-C and CAST models.